UNITED STATES DEPARTMENT OF AGRICULTURE



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INVENTORY No. 80

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Washington, D. C.

Issued April, 1927

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SEEDS AND PLANTS IMPORTED BY THE OFFICE OF FOREIGN PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, DURING THE PERIOD FROM JULY 1 TO SEPTEMBER 30, 1924 (S. P. I. NOS. 60957 TO 61737)

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INTRODUCTORY STATEMENT

The outstanding feature of the introductions included in this inventory is the relatively large proportion of forage plants, cereals, and vegetables contributed almost entirely by representatives of the bureau traveling abroad or by foreign agricultural institutions with which the Office of Foreign Plant Introduction has contacts.

H. L. Westover, of the Office of Forage Crops, made a trip to Argentina and Chile with the particular object of studying the culture of alfalfa. Extensive collections of plant material were made in those countries by Mr. Westover, not only of local strains of alfalfa but also of cereals, native grasses, and leguminous forage plants.

H. L. Shantz, of the Office of Plant Geography and Physiology, whose trip to Africa for the African Educational Commission was mentioned in the preceding inventory, continued his travels in that continent during this period, and sent in several more shipments of plant material which included native forage plants, sorghums, and other cereals and a considerable number of shrubby and herbaceous ornamentals.

While carrying on agricultural explorations in Yunnan, southwestern China, for the National Geographic Society, J. F. Rock, a collaborator of this office, made a special collection of native strains of beans and peas (Nos. 61018 to 61038). This collection should prove of special interest to vegetable breeders. A similarly interesting collection of local varieties of beans was received from George H. Winn, of Taiku, Chosen (Nos. 61039 to 61054).

Further shipments of local strains of crop plants were received from Dr. N. I. Vavilov, Director of the Bureau of Applied Botany and Plant Breeding, Leningrad, Russia. These included a series of wheats (*Triticum* spp., Nos. 61101 to 61198), a series of barleys (*Hordeum* spp., Nos. 61506 to 61592), and a small series of cottons (*Gossypium* spp., Nos. 61696 to 61714). Many of these strains originated in parts of Russia where climatic conditions are not favorable for growing crops, so that this material should prove unusually valuable for extending the range in this country of the crops represented. These same observations might also apply to additional shipments of plant material received from Prof. K. Murashinsky, of the Siberian Agricultural Academy, Omsk, Siberia. Grasses and forage plants constitute the greater part of Professor Murashinsky's contributions. For the benefit of forage-crop specialists of the

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bureau who are carrying on experiments with small-seeded strains of chickpeas as a stock feed in the Southwest, material was introduced from a number of agricultural institutions in India (*Cicer arietinum*, Nos. 61066 to 61073; 61074 to 61081; 61082 and 61083; 61356 to 61365).

Seeds of a number of rubber-producing plants, introduced for bureau specialists seeking new sources of rubber, were received in a shipment from Alleyne Leechman, director of the Biological and Agricultural Institute at Amani, Tanganyika Territory, Africa. Among these may be mentioned Castilla elastica (No. 61483), Funtumia elastica (No. 61491), Landolphia kirkii and L. stolzii (Nos. 61492 and 61493), Manihot glaziovii (Nos. 61496 and 61497), and Mascarenhasia elastica (No. 61498).

Of especial interest to fruit breeders should be a prune (*Prunus domestica*, No. 60973), very similar to the French prune in character of fruit, which thrives in the latitude of Washington, D. C. Such a tree is growing in the garden of Dr. Aleš Hrdlička in Washington, and bears large crops each fall. The tree came originally from Czechoslovakia.

A new hybrid peach (Amygdalus persica \times persica nectarina, No. 61302) originated at the Plant Introduction Garden, Chico, Calif., by hybridizing with foreign material gives promise of being a good home fruit. The round, light greenish yellow clingstone fruits, 2 inches in diameter, have white, firm, juicy flesh of a pleasing peachy flavor.

The botanical determinations of introductions have been made and the nomenclature determined by H. C. Skeels, and the descriptive matter has been prepared under the direction of Paul Russell, who has had general supervision of this inventory.

ROLAND MCKEE,

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Acting Senior Agricultural Explorer in Charge.

OFFICE OF FOREIGN PLANT INTRODUCTION, Washington, D. C., August 19, 1926. 60957. Prunus canescens Bois. Amygdalaceæ.

From Loiret, France. Seeds presented by L. Pardé, Directeur des Écoles des Barres, Nogent sur Vernisson. Received September 8, 1924.

A shrubby cherry from Szechwan, China, with attractive, dark orange-brown bark and very hairy leaves and stems. In habit it is rounded and bushy and about 7 feet high. The clustered rosy white flowers are exceedingly fragrant, but fall quickly from the leafless branches. The smooth, red fruits, half an inch in diameter, have a pleasant, acid flavor.

60958. HIBISCUS CANNABINUS L. Malvaceæ. Ambari hemp.

From Pretoria, Transvaal, Union of South Africa. Seeds presented by I. B. Pole Evans, Division of Botany. Received September 8, 1924.

Introduced for testing by fiber specialists.

A prickly-stemmed plant 6 to 8 feet in height, cultivated throughout India and elsewhere in the warmer parts of the world for its fiber, which is used as a substitute for hemp. The fiber is soft, white, and silky and is considered by some authorities to be more durable than jute for coarse textiles.

For previous introduction see S. P. I. No. 55481.

60959. ANDROPOGON SACCHAROIDES Swartz. Poaceæ. Silver beard grass.

From Sucre, Buenos Aires, Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

April 5, 1924. This grass is very abundant west of Buenos Aires; it apparently is not relished by stock except when young. (Westover.) 60960 to 60971.

From Peking, China. Seeds purchased from Rufus H. Lefever, Presbyterian Mission, Received September 12, 1924. Notes by Mr. Lefever.

60960. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. Fabaceæ. Adsuki bean.

No. 1. Nay shou do tzu (small black beans). These are boiled soft and sugar added to make a sweet cake.

60961. PHASEOLUS AUREUS Roxb. Fabaceæ. Mung bean.

No. 12. Starch is obtained from this for stiffening clothes and for eating like vermicelli.

60962 and 60963. PISUM SATIVUM L. Fabaceæ. Pea.

60962. No. 7 A local variety.

60963, No. 9. A local variety.

60964 to 60970. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceæ. Soy bean.

Local soy-bean varieties.

60964, No. 2.

60965. No. 3. Nay do. Fed to animals.

60966. No. 4.

60967. No. 5. Li lang do.

- 60968. No. 6. Sprouted and stewed with meat.
- 60969. No. 8. Used as flavoring for food.

60970. No. 10. Huang do (yellow bean). Used as flavoring for food.

60971. VIGNA SINENSIS (Torner) Savi. Fabaceæ. Cowpea.

No. 11. Stewed and eaten with rice or millet.

¹ It should be understood that the names of horticultural varieties of fruits, vegetables, cereals, and other plants used in this inventory are those under which the material was received when introduced by the Office of Foreign Plant Introduction; further, that the printing of such names here does not constitute their official publication and adoption in this country. As the different varieties are studied, their entrance into the American trade forecast, and the use of varietal names for them in American literature becomes necessary, the foreign varietal designations appearing in this inventory will be subject to change with a view to bringing the forms of the names into harmony with recognized horticultural non-neclature.

to change with a view to bringing the forms of the names into harmony with recognized horticultural nomenclature. It is a well-known fact that botanical descriptions, both technical and economic, seldom mention the seeds at all and rarely describe them in such a way as to make possible identification from the seeds alone. Many of the unusual plants listed in these inventories are appearing in this country for the first time, and there are no seed samples or herbarium specimens with ripe seeds with which the new arrivals may be compared. The only identification possible is to see that the sample received resembles seeds of other species of the same genus or of related genera. The responsibility for the specific identifications therefore must necessarily often rest with the person sending the material. If there is any question regarding the correctness of the identification of any plant received from this office, herbarium specimens of leaves and flowers should be sent in so that definite identification can be made.

- 60972. ATTALEA COHUNE Mart. Phœnicaceæ. Cohune.
- From La Providencia, Chiapas, Mexico. Seeds presented by Dr. C. A. Purpus. Received September 15, 1924.

The colume is a magnificent featherleaved palm, native to the West Indies and Central America, which reaches a height of 40 feet, with leaves about 20 feet long, produced abundantly at the top of the trunk. The yellowish flowers are borne very freely, and the ovoid fruit, 2 to 3 inches long, contains the seed or nut, which yields an oil of considerable value. According to a statement published in Commerce Reports. May 9, 1919, this oil is of high quality, finds a ready sale for cocking purposes, and is suitable for any use to which a good cooking oil may be applied.

For previous introduction see S. P. I. No. 54017.

dalaceæ. Prune.

From Czechoslovakia. Budsticks presented by Dr. Aleš IIrdlička, United States National Museum. Washington, D. C. Received September 15, 1924.

Some years ago Doctor Hrdlička received from Czechoslovakia a shipment of trees and shrubs. These were planted on Tilden Street, Washington, D. C. One of the trees, a prune, has shown such value that Doctor Hrdlička has called it to our attention with the recommendation that it be propagated and given wide distribution in this part of the United States.

part of the United States. This prune, from specimens which we have examined recently, appears very similar to the French prune in character of fruit. The latter does not succeed in the climate of Washington, whereas Doctor Hrdlička's tree bears heavy crops annually, and the fruit seems almost immune to the attacks of curculio and other pests. The ripening season is September and October.

60974. EUGENIA CURRANII C. B. Robinson, Myrtaceæ. Lipoti.

From Manila, Philippine Islands. Seeds presented by Adn. Hernandez, Director, Bureau of Agriculture. Received September 16, 1924.

Der 16, 1924. The lipoti is a handsome Philippine tree which is described in the Philippine Agricultural Review, volume 8, as a vigorous tree about 30 feet high, with a gnarled trunk and tortuous branches, and darkgreen, shining leaves. The fruits are in clusters of 20 to 50 on the bare boughs or between the leaves on the larger twigs; the individual fruit is about the size of a grape, with thin, smooth, dark-red skin, and white, dry, crisp flesh with a flavor like that of the crab apple. The seed is comparatively large. The fruit is probably best suited for making preserves and jelly.

For previous introduction see S. P. I. No. 51201.

60975 to 60982. DOLICHOS LABLAB L. Fabaceæ. Hyacinth bean.

From Salisbury, Rhodesia. Seeds presented by H. G. Mundy, Chief Agriculturist, Department of Agriculture, through C. V. Piper, Bureau of Plant Industry. Received September 16, 1924. Notes by Mr. Mundy. All of these varieties are of the bush type except Maclean's [S. P.'I. No. 60978] and McGillivray's [S. P. I. No. 60977].

- 60975. Gonzudzu. A native variety with rather small, white seeds.
- 60976. Lablab Stringless. A variety having medium-sized white seeds.
- 60977. McGillivray's. The khaki-brown seeds are medium sized.
- 60978. Maclean's. A variety with large, yellowish white seeds.
- 60979. A variety with purple vines and leaves and dark-purple seeds.
- 60980. Thurgarton. A variety with large, brown seeds.
- 60981. An imported, white-seeded variety similar to Gonzudzu [S. P. I. No. 60975].
- 60982. Woodforde's. A variety with small, brown seeds.
- 60983. PRUNUS GLANDULOSA Thunb. Amygdalaceæ.
- From Rochester, N. Y. Budwood presented by William L. G. Edson, in charge of the herbarium, Department of Parks. Received September 19, 1924.

This was grown from seeds originally brought from Manchuria by C. S. Sargent. The shrub, 15 to 20 years old, is about 5 feet high, and the fruit is the size of a large sweet cherry. (George M. Darrow, Bureau of Plant Industry.)

This pink-flowered Chinese shrub, often grown as an ornamental, bears abundant fruits, with a fresh acid flavor, which make excellent preserves.

For previous introduction see S. P. I. No. 54028.

- 60984. ATTALEA COHUNE Mart. Phœnicaceæ. Cohune.
- From Summit, Canal Zone. Seeds presented by Holger Johansen, Agronomist, Plant Introduction Garden. Received September 19, 1924.

For previous introduction and description see S. P. I. No. 60972.

- 60985 to 60987. COLOCASIA Spp. Araceæ. Taro.
- From Titikaveka, Rarotonga, Cook Islands. Tubers presented by Capt. J. D. Campbell. Received September 17, 1924.

Three varieties of taro introduced for cultural tests and comparison with taros now grown in the Gulf States.

60985. Taro kerekere.

60986. Taro simoa.

60987. Mixed varieties.

60988. SALACIA sp. Hippocrateaceæ.

From Akkra. Gold Coast Colony, Africa. Seeds presented by W. S. D. Tudhope, Director, Agricultural Department. Received September 23, 1924.

The roots and stems of this shrub, known to the natives of the Gold Coast Colony as "tetso," are said to contain a rubberlike substance, according to the Bulletin of the Imperial Institute, London, for 1912. The plant has been introduced for testing by rubber specialists. 60989. ZEA MAYS L. Poaceæ. Corn.

From Guasave, Sinaloa, Mexico. Seeds presented by F. W. Smith. Received Sep-tember 15, 1924.

A variety of red sweet corn, introduced for testing by corn specialists.

- 60990 to 60999. TRITICUM spp. Poa-Wheat. ceæ.
 - From Maison-Carree, Algeria. Seeds presented by the governor general, Institute of Agriculture. Received May 21, 1924.
 - 60990 to 60998. TRIA (T. vulgare Vill.). TRITICUM AESTIVUM L. ill.). Common wheat,
 - 60990, No. 14. Yahia.

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- 60991. No. 221. Jidi Mansour.
- 60992, No. 24, Bahmond,
- 60993. No. 36. Mastaf.
- 60994. No. 53. Cafertast.
- 60995. No. 59. Hamra de Deldoul.
- 60996, No. 62. Chatar.
- 60997. No. 69. Heha.
- 60998. No. 73. Hamra barbu.
- 60999. TRITICUM TURGIDUM L. Poulard wheat. No. 57. Ouin Rakba.

61000. Ulmus pumila L. Ulmaceæ. Chinese elm.

From Nanking, China. Seeds purchased from Dr. J. H. Reisner, College of Agri-culture, University of Nanking. Received July 11, 1924.

The Chinese elm, originally introduced some years ago, is proving a valuable ac-quisition to the semiarid regions of this country because of its resistance to alkali, drought, and extremes of temperature. As a windbreak and ornamental shade tree it has become popular in regions where other shade trees do not thrive.

- 61001. COTONEASTER SALICIFOLIA RUGOSA (E. Pritz.) Rehd. and Wils. Malaceæ.
- From Kew, England. Seeds presented by Dr. Arthur W. Hill, Director, Royal Botanic Gardens. Received November 10, 1923. Numbered July, 1924.

A very handsome Chinese shrub with long pendulous branches and wrinkled, narrow leaves with the lower surfaces covered with down. The small, scarlet berries contrast very effectively with the autumnal tints of the foliage.

61002 and 61003.

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- From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Re-ceived July 14, 1924.
 - 61002. ANNESLIA Sp. (Calliandra sp.). Mimosaceæ.

March 31, 1924. Found on dry grav-elly mesas near Paso de los Andes, Men-doza. (Westover.)

61003. BOUTELOUA MEGAPOTAMICA (Spreng.) Kuntze. Poaceæ. Grass.

Sucre, Buenos Aires. April 5, 1924. Rare in this region. (Westover.)

61004 and 61005.

- From Chile. Collected by H. L. Westover, Bureau of Plant Industry. Received July 2, 1924.
 - 61004. MALUS SYLVESTRIS Mill. (Pyrus malus L.). Malaceæ. Apple.

Santiago. June 11, 1924. Scions of a variety supplied by Señor Comacho, at the Quinta Normal; said to be very re-sistant to the woolly aphis. The moder-ately large fruit is yellow and of fair quality. (Westover.)

61005. PASPALUM sp. Poaceæ. Grass.

June 11, 1924. Seeds collected near Alto del Carmen, Huasco Valley. (Westover.)

61006 to 61008. PHASEOLUS spp. Fabaceæ.

From Tucuman, Argentina. Seeds presented by Dr. W. E. Cross, experiment station, Tucuman, through C. V. Piper, Bureau of Piant Industry. Received July 9, 1924.

Introduced for testing by forage-crop specialists.

61006. PHASEOLUS CARACALLA L. Bertoni bean.

No. 169. M Yerba Buena. May 11, 1924. Collected at a. (Cross.)

For previous introduction see S. P. I. No. 41882.

61007 and 61008. PHASEOLUS SEMIEREC-TUS L.

Introduced for trial as a forage and as a cover crop.

61007. No. 1765. 61008. No. 1784.

61009. POLYGALA BUTYRACEA Heckel. Polygalaceæ.

From Paris, France. Seeds presented by M. Aug. Chevalier, Museum of Natural History. Received July 3, 1924.

Some of the more primitive tribes of West Africa have cultivated this species, probably since ancient times, for food. It is an annual plant about 7 feet high, with hairy leaves, large yellowish flowers, and black, cylindrical seeds nearly a quarter of an inch long. It is for the sake of these seeds, which are cleaginous and very nu-tritious, that the plant is grown. Although the yield is not great, this is compensated for by the high food value of the seeds. The cultivation of the plant simply for the oil contained in these seeds would not, however, be profitable. (*Chevalier*.)

61010. FICUS sp. Moraceæ.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture. Received July 2, 1924.

Tibig, as this undetermined species of Ficus is known here, is the best fruit I have tasted in this genus next to the culti-vated fig. It does not, of course, compare with the fig, but is worth trying where figs can not be grown for climatic reasons, and also for crossing with the fig to obtain varieties for tropical climates too trying for the fig.

The tree is upright and of medium size. The fruits are produced in short racemes on the trunk from the ground up and on the stout branches, and are about 1½ inches in diameter, fleshy and juicy, very

sweet for a wild fruit, with the character-istic flavor of the cultivated fig. Though the tibig has fruited in Manila, the tree does best in a fairly moist climate with the rainfall equally distributed throughout the year. It is probably very tender. (Wester.)

61011 to 61014. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Faba-Sov bean. ceæ.

From Changli, Chihli, China. Seeds pre-sented by C. F. Chou, Methodist Episco-pal Mission. Received July 8, 1924.

These are planted in April, ripening in August. They grow best on black or yel-low clay soil, with good drainage. (Chou.)

Introduced for testing by agronomists engaged in soy-bean experiments.

61011. Ch'ing Pi Gat (green bean).

61012. Er (yellow bean).

61013. Kwan Tung (small bean).

61014. Ta Bi Mei.

61015 to 61017. LANDOLPHIA Spp. Apocvnaceæ.

rom Zomba, Nyasaland Protectorate, Africa. Seeds presented by E. J. Wort-ley, Director of Agriculture. Received July 2, 1524. From

Several species of Landolphia contain more or less rubber in the latex, and these listed below are introduced for testing by rubber specialists.

61015. LANDOLPHIA PARVIFOLIA Schum.

This is described by Otto Stapf (Thisel-ton-Dyer. Flora of Tropical Africa) as a much-branched, climbing shrub, with small, oblong leaves and small, pale-yellow or white flowers in small, dense clusters. The greenish purple fruits, about 2 inches in diameter, have a smooth, thick rind.

61016. LANDOLPHIA Sp.

61017. LANDOLPHIA sp.

61018 to 61038.

From Honolulu, Hawaii. Seeds sent in by Dr. H. L. Lyon, in charge, department of botany and forestry, experiment station of the Sugar-Planters' Association. Re-ceived July 3, 1924. Notes by J. F. Rock.

A collection of bean varieties collected in Yunnan by J. F. Rock, National Geo-graphic Society, Washington, D. C. These may prove of value for bean specialists for breeding and cultural experiments.

- 61018 to 61020. Dolichos OS LABLAB L. Hyacinth bean. Fabaceæ.
 - 61018. No. 3. Tsuchu district. Hwei Pen bean.

61019. No. 1. Yuanmao district. Hung Pin bean (red thin bean).

61020. No. 2. Monhua district. Pin bean (white thin bean). Pai

61021 to 61033. PHASEOLUS spp. Fabaceæ.

61021 to 61023. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. Adsuki bean. 61021. No. 6. Chaofung district. Lui bean (common bean).

61022. No. 8. Chinying district. Hung Fan bean (red rice bean). 023. No. 17. Chaofung distric Pai Fan bean (white rice bean). district.

61024. PHASEOLUS AUREUS Roxb. Mung bean.

No. Penchuan district. Si Lue bean (light-green bean).

61025 and 61026. PHASEOLUS COCCINEUS L. Scarlet Runner bean.

61025. No. 14-A. Chengkuan district. 61026. No. 9. Kuanming district. Hung Hau Tsai bean.

61027. PHASEOLUS LUNATUS L. Lima bean.

No. 13. Erhyuan district. Hung Pao bean (red-package bean).

- 61028 to 61033. PHASEOLUS VULGARIS L. Common bean.
 - 61028. No. 18. Chinying district. Hua bean (flower bean).
 - 61029. No. 15. Chaofung district. Sui Chi bean (four-season bean).

61030. No. 14-B. Chengkuan district.

- 61031. No. 10. Hingping district. Ta Pai bean (large white bean).
- 61032. No. 20. Fengyi district. Small white bean.
- 61033. No. 16. Taoon district. Wu Chin bean.
- 61034. PISUM SATIVUM L. Fabaceæ. Pea. No. 12. Fengyi district. Wan bean.
- 61035 to 61037. SOJA MAX (Glycine hispida Maxim.). (L.) Piper Fabaceæ. Soy bean.
 - 61035. No. 5, Hsinping district. Lu bean (large green bean). Ta
 - 036. No. 4. Fumin district. Sung Tzu bean (pine seed bean). 61036. No. 4.

61037. No. 19. Chiacha district. Hwang bean (yellow bean).

61038. VICIA FABA L. Fabaceæ. Broad bean.

No. 11. Fumin district. Tan bean (egg bean).

61039 to 61056.

From Taiku, Chosen, Japan. Seeds pre-sented by George II. Winn. Received sented by Go July 2, 1924.

Introduced for specialists engaged in experimenting with various types of beans.

61039 to 61044. PHASEOLUS spp. Fabaceæ.

61039 to 61041. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. Adsuki bean, 61039. No. 1. Ordinary red "pat." 61040. No. 2. White " pat."

61041. No. 7. Fifty-day gray "pat." 61042. PHASEOLUS AUREUS Roxb.

Mung bean. No. 4. Very small green "pat."

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61039 to 61056—Continued.
61043. PHASEOLUS CALCARATUS Roxb. Rice bean.
No. 5. Very small red "pat."
61044. PHASEOLUS VULGARIS L. Common bean.
No. 7. Red soy.
61045 to 61054. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Fabaceæ. Soy bean,
61045. No. 10. Black.
61046. No. 11. Brown.
61047. No. 8. Green.
61048. No. 3. Larger green.
61049. No. 2. Ordinary white.
61050, No. 9. Small black.
61051. No. 4. Small gray.
61052. No. 5. Striped brown.
61053. No. 6. Very small white.
61054. No. 1. White (largest variety).
61055. VIGNA CYLINDRICA (Stickm.) Skeels. Fabaceæ. Catjang.

No. 3. Small black "pat."

61056. VIGNA SINENSIS (Torner) Savi. Cowpea.

No. 6. Mottled red "pat."

61057 to 61060.

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From Richmond, Victoria, Australia. Seeds presented by F. H. Baker. Received July 1, 1924.

61057. ELAEOCARPUS CYANEUS Ait. Elæocarpaceæ.

As an ornamental tree for tropical and subtropical regions this Australian species shows considerable promise. In its nashows considerable promise. In its na-tive habitat it sometimes grows 60 feet high, with narrow, acuminate, promi-nently veined leaves, and cream-colored, fringed flowers in loose clusters a little shorter than the leaves. The fruits are globular, blue drupes.

For previous introduction see S. P. I. No. 45789.

61058. HYMENOSPORUM FLAVUM (Hook.) F. Muell. Pittosporaceæ.

An ornamental evergreen shrub or tree, sometimes becoming 50 feet high, from Australia. The leaves are up to 9 inches long, and the fragrant flowers, yellow marked with red at the throat, are over an inch across. Its symmetrical pyrami-dal habit and rapid growth make it prom-ising as a street tree for the Gulf States and California.

61059. INDIGOFERA AUSTRALIS Willd. Fa-Indigo. baceæ.

An interesting shrubby indigo, native to Australia, and probably suitable for growing as an ornamental in the warmer parts of the United States. It is an erect, branching plant 2 to 4 feet high, with very attractive foliage and dense or loose clusters of showy red flowers.

For previous introduction see S. P. I. No. 56575.

61057 to 61060-Continued.

61060. LEPTOSPERMUM SCOPARIUM Forst. Myrtaceæ. Manuka.

This evergreen shrub is one of the most This evergreen shrub is one of the most abundant in New Zealand; it is of com-pact, bushy habit, sometimes becoming 30 feet high. The leaves are hard, leathery, and sharp pointed, and the white or pink flowers, borne in great profusion, are about three-fourths of an inch across. When this shrub is in bloom the entire region appears as if covered with snow. The leaves are very aromatic, for which-reason they have sometimes been used for meking to: for making tea.

For previous introduction see S. P. I. No. 44849.

61061 and 61062. TRIFOLIUM PRATENSE Fabaceæ. Red clover. L.

From Copenhagen, Denmark. Seeds collected by G. C. Edler, United States Department of Agriculture. Received July 8, 1924.

Local red-clover strains introduced for testing by agronomists.

61061. G. C. E. No. 12.

61062. G. C. E. No. 13.

61063. CASTANOPSIS Sp. Fagaceæ. Chestnut.

From Palembang, Sumatra. Seeds presented by the Government Botanic Garden. Re-ceived July 15, 1924.

Tree No. 148-E. Colle at Palembang, Sumatra. Collected April 20, 1924,

This species is of the 2-seeded to 3-seeded This species is of the 2-seeded to 3-seeded type and thus presumably one with edible nuts, since the other three species which I know from this region with more than one seed in a bur are edible. The nuts resem-ble somewhat those of *Castanopsis suma-trana*, but are of some other species, and very different from any the department is now growing. (*Carl Hartley, Bureau of Plant Industra*) Plant Industry.)

- 61064. PARKIA TIMORIANA (DC.) Merr. (P. roxburghii G. Don). Mimosaceæ. Cupang.
- From Manila, Philippine Islands. Seeds presented by Don D. Strong, Acting Di-rector, Bureau of Agriculture, at the re-quest of P. J. Wester. Received July 11, 1924.

A huge and remarkably handsome, quick-growing tree, attaining a height of 120 feet or more, with a clear, smooth trunk, and beautiful, fine-feathery, pinnate leaves. Na-tive to Malaya, Burma, etc. It has been introduced into and become well established in Ceylon, thriving in the moist low coun-try up to 2.000 feet. The long pods, which grow in clusters, contain a quantity of white, powdery, farinaceous substance. The tree is easily propagated by seed. tree is easily propagated by seed.

- 61065. RUBUS MACROCARPUS Benth. Rosaceæ. Colombian blackberry.
- From Bogota, Colombia. Seeds presented by F. L. Rockwood. Received July 17, by F 1924

To be grown for plant breeders experi-menting with small fruits.

These came from the best-looking fruits I have ever seen in the Bogota market. The original source was a barranca near Facatativa, in a place sheltered from the wind. They were from $1\frac{1}{3}$ to $1\frac{1}{3}$ inches long, rather triangular, and of fine appear-(Rockwood.) ance.

61066 to 61073. CICER ARIETINUM L. Chick-pea. Fabaceæ.

From Pusa, Bihar, India. Seeds purchased from Asjan Singh, imperial agriculturist, Agricultural Research Institute. Re-ceived July 7, 1924.

Small-seeded strains introduced for trial as stock feed in the southwestern United States.

61066. Gram Pusa 6.

61067. Gram Pusa 17.

61068. Gram Pusa 23.

61069. Pusa Farm selection 3.

61070. Pusa Farm selection 11.

61071. Pusa Farm selection 15.

61072, Pusa Farm selection 16.

61073. Pusa Farm selection 17.

- 61074 to 61081. CICER ARIETINUM L. Fabaceæ. Chick-pea.
- From the Central Provinces of Nagpur, In-dia. Seeds presented by J. F. Dastur, Department of Agriculture. Received July 18, 1924.

Introduced for forage-crop specialists experimenting with small-seeded strains of chick-peas.

61074. Black gram 11-B.

61075. D-8.

61076. Dark brown gram (farm).

61077. Malida gram.

61078. Parbatiya gram.

61079. Parbatiya No. 2 (11-B).

61080. Yellow gram.

61081. Yellow No. 39 (11-B).

- 61082 and 61083. CICER ARIETINUM L. Fabaceæ. Chick-pea.
- From Burma, India. Seeds presented by L. Lord, Deputy Director of Agriculture, Northern Circle, Mandalay. Received July 9, 1924.

Introduced for trial as stock feed in the southwestern United States.

61082, Burmese, 61083, Karachi,

61084. PERSEA AMERICANA Mill. (P. gratissima Gaertn, f.). Lauraceæ.

Avocado.

Budwood pre-der. Received From Honolulu, Hawaii. sented by Gerrit P. Wilder. July 24, 1924.

Wilder. The seed of the original tree of the Wilder was obtained by Gerrit P. Wilder from F. W. Mcfarlane, who lived on the Wiedemann place, now known as the Macdonald Hotel. Mr. Wilder planted the small seedling tree in his private garden at 1930 Ualakaa Street, Makiki, Honolulu, in 1900. Although the tree grew vigor-ously for eight years and bore fruit abun-dantly, it gradually began to show signs of unsatisfactory soil conditions, and new trees unsatisfactory soil conditions, and new trees were propagated from it by inarching on seedling rootstocks. The variety was main-tained through inarching the progeny, from which there has been developed a large number of individuals. When grown in proper environment the Wilder is a vigor-

number of matrices. Wilder is a vigor-ous tree of rather upright growth and pro-duces an abundance of fruit of excellent quality. The variety is easily propagated by budding. The fruit ripens during Octo-ber. November, December, and January. Fruit : Form, almost spherical or slightly elongated : color, olive green ; rind, surface slightly undulated, so thick as to be shell-like: weight, 1½ pounds; flesh, yellow, tinged to green next to the rind, nutry in favor, and free from fiber ; seed, larger than the ideal, tight in the cavity, covered with skin, but a perfect freestone. Keeping qualities of the fruit are very good. (The with skin, but a perfect freestone. Keeping qualities of the fruit are very good. (The Guatemalan Avocado in Hawaii, Hawaii Bull. 51, p. 20.)

61085 and 61086.

- From Nigeria, Africa. Seeds presented by the senior conservator of forests, Olokemeji, Southern Provinces. Received July 14, 1925.
 - 61085. CARPODINUS HIRSUTA HUA. Apocynaccæ.

A common vine in the dry zone of West Africa; according to Holland (Use-ful Plants of Nigeria) it yields a rubber of inferior quality, known as "flake rub-ber" or "paste rubber," and the latex is commonly used to adulterate that of *Funtumia clastica*. It is one of the so-called "root-rubbers." Introduced for de-partment rubber spacialists partment rubber specialists.

61086. FUNTUMIA 086. FUNTUMIA Stapf. Apocynaceæ. Lagos rubber tree. ELASTICA (Preuss)

A large forest tree which is very widely A large forest tree which is very widely distributed throughout central Africa and is the source of Lagos rubber, which is of excellent quality. It is being introduced with a view to including it in the collec-tion of rubber plants now being brought together in southern Florida for investi-cational numerous gational purposes.

For previous introduction see S. P. I. No. 58963.

- 61087. SACCHARUM OFFICINARUM L. Poaceæ. Sugar cane.
- From Honolulu, Hawaii. som Honolulu, Hawaii. Cuttings pre-sented by Atherton Lee, experiment sta-tion of the Hawaiian Sugar-Planters' Association. Received July 10, 1924.

Cuttings of *Striped Tip* sugar cane, introduced for pathologists investigating sugar-cane diseases.

61088 to 61099.

- From Africa. Seeds collected by H. L. Shantz, Bureau of Plant Industry. Re-ceived July 3, 1924. Notes by Doctor Shantz.
 - 61088 and 61089. Voi Taviti. March 31, 1924. Collected from rather dry grassland.
 - 61088. Chloris sp. Poaceæ. Grass. No. 186.
 - 61089. CYNODON PLECTOSTACHYS (Schum.) Pilg. Poaceæ. Grass.

No. 186b. A low, perennial grass with creeping stolons and short blades and upright flowering stems.

1088 to 61099—Continued.

61090. DIOSCOREA LATIFOLIA Benth. Dioscoreaceæ. Acom.

No. 190. Moshi. April 2, 1924. An important element in the natives' dict; grown alone on poles or allowed to cover banana plants.

61091, ERAGROSTIS Sp. Poaceæ. Grass.

No. 196. M'Kambara, Tanganyika Territory, April 3, 1924. A small grass grown as a semiruderal along the track.

61092. HOLCUS SORGHUM L. (Sorghum vulgare Pers.). Poacee. Grass sorghum.

No. 186a. Karogive, Tanganyika Territory, April 3, 1924. A wild sorghum.

61093. LATIPES SENEGALENSIS Kunth. Poaceæ. Grass.

No. 186c. Voi Taviti. March 31, 1924. Collected from dry grasslands.

- 1924. Conserver 61094 to 61097. PHASEOLUS VULGARIS L. Fabaceæ. Common bean. Moshi. April 2, 1924.
 - 61094. No. 192. Type grown at Moshame, slopes of Mount Kilimanjaro.
 - 61095. No. 193. Recently introduced at Moshame.

61096. No. 194. Red beans; introtroduced at Moshame.

- 61097. No. 195. White beans; introduced at Moshame.
- 61098. SECALE CEREALE L. POACER. Rye.

No. 189. Moshi. April 2, 1924. Grown on slopes of Mount Kilimanjaro, at Moshame; altitude about 5,000 feet.

61099. TRITICUM AESTIVUM L. (T. vulgare Vill.). Poaceæ. Common wheat.

No. 188. Moshi. April 2, 1924. Grown at Moshame, but not extensively. Does fairly well.

61100. STIZOLOBIUM sp. Fabaceæ. Velvet bean.

From Wembley, England. Seeds secured by C. V. Piper, Bureau of Plant Industry. Received July 26, 1924.

Seeds gray, marbled with black; secured from the Nyasaland exhibit, June, 1924. (*Piper*.)

61101 to 61198. TRITICUM spp. Poaceæ.

- From Leningrad, Russia. Seeds presented by Prof. N. I. Vavilov, Director of the Bureau of Applied Botany and Plant Breeding, Received June 19, 1924. Notes by Professor Vavilov.
 - 61101 to 61103. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Common wheat, 61101. No. 4. Province of Voronezh. *Rusak*.
 - 61102. No. 7106. Georgia, Caucasus. Var. fuliginosum. Persian wheat.
 - 61103. No. 10685. Schougnan. Var. Roschanum.
 - 61104 to 61198. TRITICUM DURUM Desf. Durum wheat.
 - 61104. No. 1931. Province of Kuban. Var. Reichenbachi.

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61101 to 61198—Continued.

- 61105. No. 6914. Province of Fergan, Turkestan. Var. affine.
- 61106. No. 6924. Province of Don. Var. Reichenbachi.
- 61107. No. 6931. Fergan, Turkestan. Var. Reichenbachi.
- 61108. No. 6951. Transcaspian Territory. Var. Libicum.
- 61109. No. 7037. Province of Samara. Var. Reichenbachi. From the experiment station of Krasny-Kut.
- 61110. No. 6966. Province of Samara Var. africanum.

61111 to 61121. Var. coerulescens.

- 61111. No. 999. Georgia, Province of Tiflis, Caucasus.
- 61112. No. 1351. Semipalatinsk, Siberia.
- 61113. No. 6841. Province of Saratov.
- 61114. No. 6944. Persia.
- 61115. No. 6845. Province of Samara. From the experiment station of Krasny-Kut.
- 61116. No. 6853. Province of Saratov.
- 61117. No. 6858. Province of Samara. From the experiment station of Krasny-Kut.
- 61118. No. 6861. Province of Samara. From the experiment station of Krasny-Kut.
- 61119. No. 6862. Province of Samara. From the experiment station of Krasny-Kut.
- 61120. No. 6863. Province of Samara. From the experiment station of Krasny-Kut.
- 61121. No. 6892. Province of Orenburg.

61122 to 61183. Var. hordeiforme.

- 61122. No. 5. Province of Voronezh. Kubanka.
- 61123. No. 145. Semipalatinsk, Siberia.
- 61124. No. 254. Province of Tomsk, Siberia.
- 61125. No. 255. Province of Tomsk, Siberia.
- 61126. No. 6598. Province of Samara. From the experiment station of Krasny-Kut.
- 61127. No. 6601. Semiryechensk. Beloturka.
- 61128. No. 6602. Province of Yeniseisk, Siberia.
- 61129. No. 6604. Province of Saratov.
- 61130. No. 6606. Province of Samara. From the experiment station of Krasny-Kut.
- 61131. No. 6607. Province of Samara. From the experiment station of Krasny-Kut.
- 61132. No. 6613. Province of Samara. From the experiment station of Krasny-Kut.

61101 to 61198-Continued.

- 61133. No. 6616. Province of Samara. *Kubanka*. From the experiment station of Krasny-Kut.
- 61134. No. 6617. Province of Samara. From the experiment station of Krasny-Kut.
- 61135. No. 6619. Province of Don. Kubanka.
- 61136. No. 6620. Province of Voronezh.
- 61137. No. 6623. Turgaisk Province, Central Asia.
- 61138. No. 6625. Province of Poltava.
- 61139. No. 6627. Province of Samara.
- 61140. No. 6630. Province of Samara. From the experiment station of Krasny-Kut.
- 61141. No. 6632. Province of Fergan, Turkestan.
- 61142. No. 6634. Province of Samara. From the experiment station of Krasny-Kut.
- 61143. No. 6636. Province of Samara.
- 61144. No. 6640. Province of Samara. From the experiment station of Krasny-Kut.
- 61145. No. 6641. Province of Orenburg. Beloturka.
- 61146. No. 6644. Province of Samara.
- 61147, No. 6646. Province of Samara.
- 61148. No. 6648. Province of Saratov.
- 61149. No. 6649. Province of Tomsk, Siberia. Kubanka.
- 61150. No. 6651. Province of Syr-Daria, Turkestan.
- 61151. No. 6653. Province of Samara. From the experiment station of Krasny-Kut.
- 61152. No. 6654. Province of Samara.
- 61153. No. 6655. Province of Saratov.
- 61154. No. 6662. Persia.
- 61155. No. 6672. Province of Saratov.
- 61156. No. 6673. Province of Samara.
- 61157. No.6675. Province of Samara. Beloturka. From the experiment station of Krasny-Kut.
- 61158. No. 6676. Province of Samara. From the experiment station of Krasny-Kut.
- 61159. No. 6677. Province of Samara. From the experiment station of Krasny-Kut.
- 61160. No. 6683. Province of Saratov. Beloturka.
- 61161. No. 6685. Province of Fergan, Turkestan. Kubanka.
- 61162. No. 6686. Province of Fergan, District of Zaisan, Turkestan. *Kubanka*.
- 61163. No. 6687. Province of Saratov. Beloturka.

61101 to 61198—Continued.

- 61164. No. 6693. Nicolsk-Ussurijsk. 61165. No. 6696. Nicolsk-Ussurijsk. 61166. No. 6697. Transcaspian Territory. 61167. No. 6698. Turkestan, 61168. No. 6708. Province of Podolia. 61169. No. 6711. Province of Samara. 61170. No. 6719. Province of Tomsk, Siberia. 61171. No. 6727. Province of Saratoy. 6730. 61172. No. Province of Samara, Nicolaev. 61173, No. 6733. Province of Samara, Busuluk.
- 61174. No. 6761. Province of Samara.
- 61175. No. 6978. Province of Samara. From the experiment station of Krasny-Kut.
- 61176. No. 6979. Province of Samara. From the experiment station of Krasny-Kut.
- 61177. No. 6984. Transcaspian Territory.
- 61178. No. 6988. Province of Saratov.
- 61179. No. 6990. Province of Voronezh.
- 61180. No. 6992. Province of Samara. From the experiment station of Krasny-Kut.
- 61181. No. 6995. Province of Samara. From the experiment station of Krasny-Kut.
- 61182. No. 6999. Province of Saratov.
- 61183. No. 7058. Province of Samara. From the experiment station of Krasny-Kut.

61184 to 61195. Var. melanopus.

- 61184. No. 490. Province of Don.
- 61185. No. 807. Bessarabia.
- 61186. No. 836. Province of Don.
- 61187. No. 6720. Province of Tomsk, Siberia. Serouska.
- 61188. No. 6772. Province of Tomsk, Siberia.
- 61189. No. 6777. Province of Eniseisk, Siberia.
- 61190. No. 6784. Province of Samara. From the experiment station of Krasny-Kut.
- 61191. No. 6790. Province of Samara. From the experiment station of Krasny-Kut.
- 61192. No. 6797. Province of Samara. From the experiment station of Krasny-Kut.
- 61193. No. 6821. Turkestan.
- 61194. No. 6831. Province of Samara, District of Novousensk.
- 61195. No. 7013. Province of Samara, District of Novousensk.

61101 to 61198—Continued.

61196 to 61198. Var. murciense.

- 61196. No. 6897. Province of Samara. From the experiment station of Krasny-Kut.
- 61197. No. 6901. Province of Samara. From the experiment station of Krasny-Kut.
- 61198. No. 6905. Province of Fergan, Turkestan.
- 61199. Medicago sativa L. Fabaceæ. Alfalfa.
- From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

April 19, 1924. Procured from the highest point reached by the Trans-Andean Railroad, at an altitude of about 10,000 feet. (Westover.)

61200. CITRUS MEDICA L. RUTACER.

Citron.

From the island of Corsica. Cuttings received August 1, 1924.

For testing by horticulturists engaged in citrus-breeding experiments.

61201 to 61223.

From the Union of South Africa. Collected by H. L. Shantz, Bureau of Plant Industry. Received July and August, 1924. Notes by Doctor Shantz.

61201. MARANTA ARUNDINACEA L. Araceæ. Bermuda arrowroot.

No. 292. Livingstonia, Nyasaland. April 30, 1924. Arrowroot grown by the natives on the highlands above Nyasa.

61202. DISA sp. Orchidaceæ.

No. 289. Livingstonia, Nyasaland, April 29, 1924. A beautiful blue terrestrial orchid, growing abundantly in mountain grassland west of Nyasa and said to be one of the most beautiful flowers here.

61203, ORNITHOGALUM sp. Liliaceæ.

No. 453. Deedorns, Cape Province. June 16, 1924. Lilylike bulbs from the desert at the edge of the karoo.

61204. (Undetermined.)

No. 446. Decorns, Cape Province, June 16, 1924. A handsome lilylike plant with yellow-tipped, red flowers. Not only is the flower of this plant attractive but the foliage is also somewhat variegated.

61205. COTYLEDON sp. Crassulaceæ.

No. 444. Deedorns, Cape Province. June 16, 1924. This forms a fleshy, treelike plant, reaching a height of 6 feet or more. It is leafess during the dry period, but the whole plant stem usually remains soft and green. At the beginning of growth it develops a bulbous stem which reminds one of true bulbous plants.

61206. (Undetermined.)

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No. 445. Deedorns, Cape Province. June 16, 1924. Bulbs of a liliaceous plant aboat 6 inches in diameter, which usually is very abundant throughout this section. The plant has a curious habit of forming a new bulblet at the base of each of the leaves when the old bulb dies. It is produced in great abundance at the edge of the karoo.

61201 to 61223—Continued.

61207. (Undetermined.)

Same as No. 445 [S. P. I. No. 61206], but has small bulblets.

61208. (Undetermined.)

No. 446a. Deedorns, Cape Province. June 16, 1924. A lilylike plant with attractive, yellow-tipped, red flowers.

61209. BABIANA sp. Iridaceæ.

No. 447. Deedorns, Cape Province, June 16, 1924. A very attractive iridaceous plant growing over a large portion of South Africa.

61210. (Undetermined.)

No. 448. Deedorns, Cape Province. June 16, 1924. A bulbous plant similar in general character to Massonia.

61211. (Undetermined.)

No. 449. Deedorns, Cape Province. June 16, 1924. A bulbous plant similar in general character to Massonia.

61212, (Undetermined.)

No. 452. Deedorns, Cape Province. June 16, 1924. A small liliaceous plant.

61213. BUPHANE DISTICHA (L. f.) Herbert. Amaryllidaceæ.

No. 459. Cape Town, Cape Province, June 22, 1924. A plant, typically South African, with a very large bulb and stems a foot in diameter. It contains **a** very powerful toxic alkaloid called hæmanthine, and was one of the sources of arrow poison used by the bushmen. The bulb sends up a large head of small flowers.

61214, COTYLEDON sp. Crassulaceæ.

No. 444a. Deedorns. Cape Province. June 16, 1924. This is a fleshy, treelike plant, reaching a height of 6 feet or more. It is leafless during the dry period, but the whole plant stem usually remains soft and green. At the beginning of growth it develops a thickened stem which reminds one of true bulbous plants.

61215. GLADIOLUS sp. Iridaceæ.

No. 287. Livingstonia, Nyasaland. April 29, 1924. A fine, large type, probably yellow flowered.

61216, GLADIOLUS sp. Iridaceæ.

No. 288. April 29, 1924. From the west escarpment above Nyasa near Livingstonia. A beautiful, small, pink, frail gladiolus; flowers few but large.

61217. BULBINE sp. Liliaceæ.

No. 286. Livingstonia. Nyasaland. April 29, 1924. A fine, tall, wild type, with deep-blue to purple flowers; abundant throughout the grassland.

61218. (Undetermined.)

No. 290. Livingstonia, Nyasaland. Said to have very attractive flowers. These lilies grow in a heavy clay (lateritic) soil in a region where drought occurs but is not very severe.

61219. (Undetermined.)

No. 455. Deedorns, Cape Province. June 16, 1924. From the karoo.

61201 to 61223-Continued.

61220. (Undetermined.)

No. 450. Deedorns, Cape Province. June 16, 1924. A curious tuberous plant.

61221. (Undetermined.)

No. 454. Deedorns, Cape Province. June 16, 1924. A fleshy leaved bulbous plant from the desert and the edge of the karoo.

61222. (Undetermined.)

No. 451. De June 16, 1924. green spike. 451. Deedorns, Cape Province. 16, 1924. A plant with a small

61223. COTYLEDON sp. Crassulaceæ.

No. 444b. Deedorns, Cape Province. June 16, 1924. This is a fleshy, treelike plant, reaching a height of 6 feet or more. It is leafless during the dry pe-riod, but the whole plant stem usually remains soft and green. At the begin-ning of the wet season it develops a thickened stem which reminds one of the true bulbous plants.

61224. Prunus spinosa \times domestica. Hybrid plum. Amygdalaceæ.

From Koslov, Tambov Government, Russia, A form developed at the Plant Introduc-tion Garden, Chico, Calif., from one of the original 14 cuttings received in 1911 from I. V. Mijurin, Koslov, through Frank N. Meyer, agricultural explorer. Num-bered July, 1924.

Fruit 1½ to 1¾ inches in diameter; pale yellow mottled with brownish, irregular blotches; cavity small, shallow; suture more or less prominent; skin thick; flesh yellow, melting, very juicy and deliciously sweet; pit small, practically free.

61225 to 61229. Conchorus spp. Tiliaceæ. Jute.

From Dacca, eastern Bengal, India. Seeds presented by R. S. Finlow, fiber expert to the Government of Bengal. Received July 30, 1924.

Native varieties of jute introduced for fiber-plant specialists. The quoted notes are from the Bengal Agricultural Journal, vol. 2, no. 1, 1922.

61225. CORCHORUS OLITORIUS L.

"Chinsura Green, a selected type of Bogey jute which was raised by the fiber expert to the Government of Bengal and has given exceptionally heavy yields in western Bengal." (P. 7.)

For previous introduction see S. P. I. No. 55973.

61226 to 61229. CORCHORUS CAPSULARIS L.

- For previous introduction see S. P. I. No. 45809.
 - 61226. Kalir Char. Locally grown seeds, Khulua, Bengal.
 - 61227. Kaya Bombai (mixed with Kalir Char).
 - 61228. "R. 85. An eastern Bengal jute with the reputation of being a heavy yielder. It was selected by the fiber expert from the Kakai Bombai strain and is resistant to the disease known as 'chlorosis,' which causes yellow-ing of the leaves." (P. 7.)

61229, D. 154.

- 61230. JASMINUM SAMBAC (L.) Ait. Arabian jasmine. Oleaceæ.
- From Nogent sur Marne, Seine, France. Plant presented by the director, Colonial Garden. Received August 8, 1924.

Arabian jasmine is cultivated in India for the sake of the oil, used in perfumery, which is obtained from the fragrant flow-ers. It is now introduced for the use of specialists investigating oil plants which yield perfume.

61231 to 61234.

- From South America. Seeds collected by H. L. Westover, Bureau of Plant Indus-try. Received July 14, 1924. Notes by try. Received Mr. Westover.
 - 61231. BROMUS UNIOLOIDES (Willd.) H. B. K. Poaceæ. Rescue grass.

April 5, 1924. Collected near Sucre, Buenos Aires, Argentina. Locally known as Australian brome or cebadilla. Highly prized as winter pasture grass.

61232. GALEGA OFFICINALIS L. Fabaceæ. Goat's-rue.

Collected near Hospital, O'Higgins Prov-ince, Chile. This plant makes a very vigorous growth during the summer months and might be of some value in sections of this country where a summer green-manuring crop is desired.

61233. GOSSYPIUM sp. Malvaceæ. Cotton.

June 1, 1924. Collected from a large plant growing along the ditch bank sev-eral miles above Alto del Carmen, Chile.

61234. HORDEUM DISTICHON PALMELLA 22. Two-rowed barley. Harlan, Poaceæ.

May 2, 1924. Hacienda Eltambo, Mallao. Chile.

61235 to 61237. COIX LACRYMA-JOBI MA-YUEN (Rom.) Stapf. Poaceæ.

Adlay.

From Manila, Philippine Islands. Seeds presented by Adn. Hernandez, Director, Bureau of Agriculture, at the request of P. J. Wester, Bureau of Agriculture. Re-ceived September 17, 1924.

The mayuen, or adlay, has attracted considerable attention as a cereal for tropi-cal regions. According to Mr. Wester, it is better than upland rice for tropical agricul-ture in being more drought resistant, a heavier yielder, and much less expensive to cultivate. The seeds can be used largely in the seme manner as corn. in the same manner as corn.

61235. Bontac. 61237. Davao.

61236. La Union Red.

61238 to 61242.

- From Buitenzorg, Java. Plants presented by Dr. C. J. J. Van Hall, Department of Agriculture, Buitenzorg, through Carl Hartley, Bureau of Plant Industry. Received July 18, 1924.
 - 61238. CASTANOPSIS ARGENTEA (Blume) A. DC. Fagaceæ.

No. 2. An evergreen East Indian chest-No. 2. An evergreen East Indian chest-nut 50 to 60 feet high, with thin, narrow leaves about 7 inches long and dense clusters of spiny burs; each bur is about 2 inches wide and usually contains a sin-gle nut an inch in diameter. According to Doctor Hartley, these nuts are edible.

For previous introduction see S. P. I. No. 57732.

61238 to 61242—Continued.

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61239 to 61242. QUERCUS spp. Fagaceæ. Oak.

These four East Indian oaks are intro-duced for trial in the warmer parts of the southern United States as shade trees and as possible sources of tanin. The descriptive notes are taken from Miquel's Flora van Nederlandsch Indie, vol. 1, and from Ridley's Flora of the Malay Penin-sula, vol. 3.

61239. QUERCUS BLUMEANA Korth.

No. 3. A rather uncommon tree, 40 to 50 feet high, with narrowly oblong, leathery leaves about 8 inches long and roundish silky tomentose acorns three-fourths of an inch wide.

61240. QUERCUS INDUTA Blume.

No. 9. A tree with long-pointed, entire leaves and flattened acorns.

61241. QUERCUS SUNDAICA Blume.

No. 6. A tall tree, 60 to 80 feet high, with silvery, thinly coriaceous elliptic leaves, and fruits in rather crowded stout spikes. The dark chest-nut-colored ovoid-conic acorns are an inch in countert dispertent inch in greatest diameter.

61242. QUERCUS TEYSMANNII Blume.

No. 4. A tree with serrate, narrowly oblong, leathery leaves about 6 inches long and ovoid-globose acorns an inch and a half in diameter.

61243 and 61244. FRAGARIA spp. Rosa-Strawberry. COP.

From The Hague, Netherlands. Plants pre-sented by the American vice consul, The Hague. Received September 12, 1924. Hague.

Dutch strawberry varieties introduced for testing by horticulturists.

61243. FRAGARIA SD.

Breadasche.

61244. FRAGARIA SD.

"Deutsch Evern. A prolific variety with very large, delicious berries." (J. Abbing & Sons, Zeist, Netherlands, 1922-1923 catalog.)

61245 to 61252

- From Cape Town, Union of South Africa. Bulbs purchased from W. S. Duke & Co., Cape Town, through H. L. Shantz, Bureau of Plant Industry. Received September 18, 1924.
 - 61245. BRUNSVIGIA JOSEPHINAE (Red.) Ker. Amaryllidaceæ.

No. 467. A South African bulbous plant 2 to 3 feet high with eight or ten thick, closely ribbed, strap-shaped leaves and large, brick-red flowers.

61246. BUPHANE CILIARIS (L.) Herbert. Amaryllidaceæ.

No. 470. The flower stalks of this remarkable South African amaryllida-ceous plant appear before the leaves and bear 50 to 100 dull-purple flowers. The thick. strap-shaped leaves appear later.

61247. GLADIOLUS Sp. Iridaceæ.

A South African variety.

61245 to 61252—Continued.

61248. HAEMANTHUS KATHERINAE Baker. Amaryllidaceæ. Blood lily.

An attractive bulbous plant, native to South Africa, with three to five oblong, pointed leaves borne on a separate stem which appears with the flowers. The bright-red flowers are produced at the summit of an upright peduncle which grows from the base of the leaf stem.

61249, ORNITHOGALUM NATALENSE Baker. Liliaceæ.

A white-flowered bulbous plant from the Cape of Good Hope, where several members of this genus are known as "chincherinchees." The dried flower clusters are prized there as "everlastings.'

61250. TRITONIA sp. (Montbretia sp.). Iridaceæ.

The Tritonias are South African plants, related to the ircses, with nar-row leaves and numerous flowers of various colors. In the trade, Tritonias are often known as Montbretias.

61251. WATSONIA ROSEA Ker. Iridaceæ. Bugle lily. Iridaceæ.

A robust pink-flowered species, 4 to 6 feet high, with strap-shaped narrow leaves. The flowers are in dense or lax spikes, the terminal spikes measuring 6 inches to a foot in length. Native to South America.

61252. WATSONIA Sp. Iridacew. Bugle lily.

The Watsonias are South African ornamental plants closely related to the gladiolus.

- 61253. CANARIUM OVATUM Engl. Balsameaceæ. Pili nut.
- From Manila, Philippine Islands. Nuts pre-sented by H. T. Edwards, Bureau of Plant Industry. Received July 29, 1924.

Pili nuts as grown in the Philippines are quite variable in quality, and these now sent in by Mr. Edwards are from particu-larly choice strains. The tree which is rarely cultivated, is tall, at times reaching 130 fect in height, with dark-green, pinnate leaves over a foot long. According to P. J. Wester (Food Plants of the Philippines), the trangenture pointed put inclosed in a black triangular, pointed nut, inclosed in a black, shining shell, is excellent when eaten raw or roasted and is of high food value.

For previous introduction see S. P. I. No. 54434.

61254 to 61257.

From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Re-ceived July 14, 1924. Notes by Mr. Westover.

61254. PANICUM MILIOIDES Nees. Poaceæ. Grass.

April, 1924. Collected near Sucre, Buenos Aires.

61255 to 61257. PASPALUM DILATATUM Dallis grass. Poir. Poaceæ.

61255. March 28, 1924. Collected near Mercedes, Buenos Aires.

61254 to 61257-Continued.

61256. April 5, 1924. Collected near Sucre, Buenos Aires, Argentina. This is one of the most abundant grasses in this locality.

61257. March 30, 1924. Collected near Lupan de Cuyo, Mendoza, Argentina.

61258 to 61267. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Fabaceæ. Soy bean.

From Marugame, Sanuki Province, Japan. Seeds presented by J. Woodrow Hassell. Received August 6, 1924.

Introduced for testing by agronomists engaged in soy-bean experiments.

61258.	No. 1.	61263.	No. 6.
61259.	No. 2,	61264.	No. 7.
61260.	No. 3.	61265.	No. 8.
61261.	No. 4.	61266,	No. 9.
61262.	No. 5.	61267.	No. 10.

- 61268. CLITANDRA ELASTICA Cheval. ADOCYNACE:
- From Nigeria, Africa. Seeds presented by the senior conservator of forests, Olokemeji, Southern Provinces. Received July 29, 1924.

A black rubber of good quality is obtained from this plant by the natives of Nigeria, where it grows wild. It is described by Holland (Useful Plants of Nigeria) as a climbing plant up to 60 feet in height, with elliptic, dark-green leaves, paler below, and spherical fruits the size of a mandarin orange. It is one of the principal sources of vine rubber on the Ivory Coast. When cut to the ground the vine shoots up again from the base. It is introduced for department rubber specialists.

61269 and 61270.

- From Summit, Canal Zone. Seeds presented by Holger Johansen, Agronomist, Plant Introduction Garden. Received August 11, 1924.
 - 61269. ARTOCARPUS COMMUNIS Forst. Moraceæ. Breadfruit.

The jackfruit (Artocarpus integra) has been grown successfully in southern Florida. The closely allied breadfruit, however, has not yet received an adequate trial in that State, and the department is now attempting to establish this tree in that region. Although it is not anticipated that the breadfruit tree will ever become of economic importance in the continental United States, it is thought that it may prove an interesting addition to the list of tropical economic plants which can be grown in the gardens of southern Florida.

For previous introduction see S. P. I. No. 57771.

61270. RHEEDIA sp. Clusiaceæ.

Seeds of a native Rheedia. (Johansen.)

Some of the members of this genus of tropical trees have edible fruits. The mangosteen (*Garcinia mangostana*) belongs to this family. 61271. HIBISCUS Sp. Malvaceæ.

From Koro Levu, via Nadvoga, Fiji. Seeds presented by E. M. Bucknell. Received August 1, 1924.

A very handsome hibiscus with single flowers; these are deep, rich red. The plant is straggly in habit, being almost a vine. Propagation is easily effected by seeds. (Buckneil.)

61272. AVENA ABYSSINICA Hochst. Poaceæ. Oats.

Uats. From Asmara, Eritrea, Africa. Seeds presented by the Direttore dell'Ufficio Agrario Sperimentale. Received August 1, 1924.

In the upper part of the middle, or subtropical zone, of Abyssinia, where the altitude is approximately 8,000 feet, and also at still higher altitudes in some places, this species of oats is cultivated both as a cereal and for forage, according to Chiovenda (Osservazioni Botaniche nell' Etiopia). Be sides the typical form, a number of local strains have been reported.

- 61273. CORYLOPSIS GOTOANA Makino. Hamamelidaceæ
- From Jamaica Plain, Mass. Cuttings presented by Prof. C. S. Sargent, Arnold Arboretum. Received August 12, 1924.

This is the hardiest member of the genus Corylopsis, according to E. H. Wilson, of the Arnold Arboretum, where the plant has never suffered winter injury. It is a widespreading, twiggy shrub with delicately fragrant, lemon-yellow flowers in slender, pendent racemes and is one of the first shrubs to bloom in the spring. The individual flowers, three eighths of an inch across, are rich in nectar. This species is native to the rugged mountains of central Japan.

61274 to 61278.

- From Edinburgh, Scotland. Seeds presented by William Wright Smith, Regius Keeper, Royal Botanic Garden. Received June 16, 1924. Notes by Mr. Smith.
- Local Tibetan strains of crop plants secured for testing by agronomists.
 - 61274. HORDEUM VULGARE COELESTE L. Ponceæ. Six-rowed barley. No. 1. From Tuna, at an altitude of about 14,500 feet.
 - 61275. HORDEUM VULGARE COELESTE L. Poaceæ. Six-rowed barley. No. 2. From Dochen, at an altitude of about 14,000 feet.
 - 61276. TRIFICUM AESTIVUM L. (T. vulgare Vill.). Poaceæ. Common wheat. No. 3. From Khangma, at an altitude of about 13,500 feet.
 - 61277 and 61278. PISUM SATIVUM L. Fabacew. Pea.
 61277. No. 4. From Khangma, at an
 - 61277. No. 4. From Khangma, at an altitude of about 13,500 feet.
 - 61278. No. 5. From Gyantse, at an altitude of about 13,000 feet.
- 61279 to 61298. ORYZA SATIVA L. POaceæ. Rice.
- From Canton, China. Seeds presented by Edward Shim, Department of Agriculture, Canton Christian College. Received July 15, 1924.

61279. Bak Hok Law.

- 61279 to 61298—Continued.
 - 61280. Fah Loh Check.
 - 61281. Goi Leong Tung Koon Bak.

61282. Ho Kau Guk.

- 61283. Siu Goo Sun.
- 61284. Ka Ying Zao.
- 61285. Kong Sai Zao.
- 61286. Lok Yip Chim.
- 61287. Ngung Chim.
- 61288. Siu Goo Sun.
- 61289. So She Bak.
- 61290. Sui Sun Guk.
- 61291. Su Lo Bak.
- 61292. Szechuan Chim.
- 61293. Tai Yip Chim.
- 61294. Tung Koon Bak.
- 61295. Vung Ying Chim.
- 61296. Vung Ying Chun Chim.
- 61297. Yuen Zui Hung.
- 61298. Zau Kau Lau.
- 61299 and 61300. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Fabaceæ. Soy bean.
- From Fukuoka, Japan. Seeds presented by Dr. Tyozaburo Tanaka, in charge, Horticultural Institute, Department of Agriculture, Kyushu Imperial University. Received July 24, 1924. Notes by Doctor Tanaka.
 - 61299. Shiro Aki Daidzu (white autumn bean). From the Saga Prefectural Agricultural Experiment Station.
 - 61300. Kuro Aki Daidzu (black autumn bean). From the Saga Prefectural Agricultural Experiment Station.
- 61301. GARCINIA MANGOSTANA L. Clusiaceæ. Mangosteen.
- From Paris, France. Seeds purchased from Vilmorin - Andrieux & Co. Received August 18, 1924.

Mangosteen seeds, originally from Asia; introduced for testing in the tropical dependencies of the United States.

For previous introduction see S. P. I. No. 58027.

61302. Amygdalus persica \times persica nectarina. Amygdalaceæ.

Hybrid peach.

A hybrid originated at the Plant Introduction Garden, Chico, Calif., and now numbered, July 1924, for convenience in distribution.

This variety was produced by J. E. Morrow, superintendent of the Chico Garden, by crossing the Bolivian Cling (S. P. I. No. 36126) and the Quetta nectarine (S. P. I. No. 34684). A description of the fruit follows:

No. 34084). A description of the follows: follows: Fruit nearly round, 2 inches in diameter; cavity medium sized, mid-abrupt; suture mostly distinct, shallow; apex with very small point; skin light greenish yellow, overlain with red at stem end and side, slightly tough, separating readily

from the flesh, with heavy tomentum; flesh white, little fiber, juicy, firm, pleasing peachy flavor, clinging to pit; pit large for size of fruit, 1¼ inches by 1 inch. A good fruit for home use.

- 61303. LYCOPERSICON ESCULENTUM Mill. Solanaceæ. Tomato.
- From Nancagua, Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

May 7, 1924. This is said to be the wild tomato, but probably it is the cultivated form which has escaped. (West-over.)

61304 to 61309. AVENA spp. Poaceæ.

- From Melbourne, Victoria, Australia. Seeds presented by A. E. V. Richardson, Superintendent of Agriculture. Received August 6, 1924. Quoted notes from the Australian Institute of Science and Industry, Bulletin No. 23.
 - 61304 and 61305. AVENA STERILIS L. Oats.
 - 61304. "Algerian. A very good generalpurpose oat, giving excellent yields in all districts except those where a very early variety is necessary. Occasionally reported as having a tendency to shatter and lodge, but on the whole does neither. Season medium; stooling medium to abundant. The panicle is equilateral, spreading, erect, and rather short." (P. 27.)
 - 61305. "Calcutta. Straw weaker than Algerian [S. P. I. No. 61304], and more inclined to lodge. This variety is reported to be early in most districts, but it is sometimes considered as midseason. The panicle is equilateral, spreading, and erect. (P. 26.)
 - 61306 to 61308. AVENA SATIVA L. Oats.
 - 61306. "Dun. A general-purpose variety for the colder districts. Season late; stooling abundant; the panicle equilateral and erect." (P. 21.)
 - 61307. "Quandong. Medium stooler as compared with Ruakura [S. P. I. No. 61308], but has slightly taller, stronger straw. Good variety for dry districts. Season early; panicle equilateral, spreading, erect, and rigid." (P. 22.)
 - 61308. "Ruakura. Good general-purpose oat. Season early; stooling abundant; panicle equilateral, spreading, erect, rigid, lateral branches rigid." (P. 25.)
 - 61309. AVENA SATIVA \times STERILIS. Hybrid oats.

"Yarran. Season early; stooling medium, paniele equilateral, erect, long, branches erect, number of lateral branches seven to twelve." (P. 24.)

61310 and 61311. ZEA MAYS L. Poaceæ. Corn.

From Peru, South America. Seeds collected by Fred D. Richey, of the Bureau of Plant Industry, and Prof. R. A. Emerson, of Cornell University. Received July 31, 1924.

Introduced for agronomists experimenting with corn varieties.

61310. Laurel.

61311. Granada.

61312. CITRUS AURANTIFOLIA (Christm.) | 61317 to 61321-Continued. Swingle. Rutaceæ. Lime.

From Panama. Seeds collected by David Fairchild, Bureau of Plant Industry. Received August 23, 1924.

August 2, 1924. A wild lime growing in dense shade on the new Lathrop Trail just opened up across Barro Colorado Island. The fruits were of medium size, with few seeds, and of excellent quality. (Beinebild) (Fairchild.)

- 61313. MARTINEZIA EROSA Linden. Phœ-Palm. nicaceæ.
- From Sanfiago de las Vegas, Cuba. Seeds presented by Gonzalo Fortun, Director, Estación Experimental Agronómica, through David Fairchild, Bureau of Plant Industry. Received July 25, 1924.

A small ornamental feather-leaved palm A small ornamental reacher-reaved pain from tropical America which is covered throughout with long, needlelike spines, A related species (*M. caryotaefolia*) is grown to some extent in lower Florida.

For previous introduction see S. P. I. No. 51724.

- 61314. HORDEUM DISTICHON PALMELLA Harlan. Poaceæ. Two-rowed barley.
- From Czechoslovakia. Seeds presented by Scheuker & Co., Bron. Received August 12, 1924.

To be grown for comparison and cul-tural tests.

61315 and 61316. URCEOLA ESCULENTA (A. DC.) Benth. Apocynaceæ.

From Maymyo, India. Seeds presented by Charles T. Bogg. Superintendent, Gov-ernment Botanic Garden. Received July 14, 1924.

A vigorous climber from eastern India, which, according to Watt (Dictionary of the Economic Products of India), has the Economic Products of India), has received some consideration in that coun-try as a source of rubber. In Burma the plant is cultivated to some extent for the edible fruit, which is about the size of an orange and popular with the natives. It is now introduced for department specialists experimenting with rubber-vialding plants yielding plants.

61315. From the Conservator of Forests, Tavoy. (Bogg.)

61316. From the Extra Assistant Con-servator of Forests, Mergui. (Bogg.)

61317 to 61321.

From Japan. Seeds presented by K. Matsu-shima, through W. S. Field, San Fran-cisco, Calif. Received July 15, 1924.

A collection of seeds sent in without notes; to be grown and tested for value as forage.

61317. AGROPYRON SEMICOSTATUM Nees. Grass. Poaceæ.

A perennial, fibrous-rooted grass, with erect stems and narrowly linear leaves. Native to Afghanistan.

61318. AGROPYRON Sp. Poaceæ. Grass.

61319. HORDEUM NODOSUM L. (H. seca-linum Schreb.). Poaceæ. Grass.

A perennial, European grass, of right habit, about a foot in height. of up-

61320. MELILOTUS SUAVEOLENS Ledeb. Fabaceæ. Sweet clover.

A Siberian sweet clover introduced for cultural and comparison tests.

61321. VICIA AMOENA Fisch. Fabaceæ. Vetch.

A perennial Siberian vetch, with stems up to 4 feet in length and purplish flowers.

- 61322. MELILOTUS INDICA (L.) All. Fabaceæ. Sweet clover.
- From Simla, India. Seeds presented by II. E. J. Peake, Khaltoo Fruit Orchards, Solan brewery. Received July 17, 1924.

 Λ local strain of annual yellow melilot, collected near the Solan brewery; introduced for testing by agronomists.

- 61323. HETEROSPATHE ELATA Scheff. Phœnicaceæ. Palm.
- From Manila, Philippine Islands. Seeds presented by Adn. Hernandez, Director, Bureau of Agriculture, at the request of P. J. Wester, Manila. Received July 18, P. J. 1924.

A tall, unarmed palm, with a slender, straight stem and long pinnate leaves, growing in protected situations and where the rainfall is evenly distributed. It is one of the most attractive and graceful palms that I have seen, and from my experience with it at Lamao it will make a good plant for the conservatory and possibly a good house palm. (Wester.)

For previous introduction see S. P. I. No. 46640.

61324 to 61328.

- From Hobart, Tasmania. Seeds presented by L. A. Evans, Secretary of Agricul-ture, Agricultural and Stock Depart-ment. Received July 5, 1924.
 - 61324. ANOPTERUS GLANDULOSUS Labill. Escalloniaceæ.

A handsome evergreen shrub, abun-dant in Tasmanian forests, with leathery, toothed leaves and rather large flowers, white with a rosy tint, produced in erect, terminal racemes.

61325 and 61326. BILLARDIERA LONGIFLORA Labill. l'ittosporaceæ.

A twining shrub, sometimes several feet in length, with leaves varying from oval to linear in shape and from half an inch to 2 inches in length. The flowers are pendulous on solitary stems an inch long. This plant grows wild along watercourses in Australia and Tasmenia Tasmania

For previous introduction see S. P. I. No. 56562.

61325. Pink flowers.

61326. Blue flowers

61327. DRIMYS LANCEOLATA (Poir) Baill. (D. aromatica F. Muell.). Magno-Baill. liaceæ.

The bark of this Tasmanian shrub or small tree, like that of its Chilean rela-tive (*Drimys winteri*), possesses aro-matic properties, and the round drupes, about the size of a pea, are used as a condiment size of a pea, are used as a condiment.

61324 to 61328—Continued.

61328. RICHEA DRACOPHYLLA R. Br. Epacridaceæ.

A stout Tasmanian shrub or small tree, described by Bentham (Flora Aus-traliensis) as having long, narrow leaves crowded at the ends of the branches, and white or pink flowers, nearly half an inch long, in dense terminal clusters.

- 61329. Euphorbia abyssinica Gmel. Euphorbiaceæ.
- From Asmara, Eritren, Africa. Seeds pre-sented by the Direttore dell' Ufficio Agrario Sperimentale. Received August 1, 1924.

E. O. Fenzi, of Tripoli, Libia, states (under S. P. I. 61366) that this plant may prove of special interest, since it grows in the poorest and driest soil, attains a height of 30 to 40 feet, and yields a large quan-tity of latex containing about 5 per cent of first-class rubber.

61330. (Undetermined.)

From Balavaini, Marovo Lagoon, Solomon Islands. Tubers presented by H. Trevor Fairbrother. Received August 6, 1924.

The tubers of this plant are small, about the size, shape, and flavor of Morton's tinned new potatoes. The plant bears in about two months from planting, and the "potatoes" are not borne underground, but on the vine, which bears from 300 to 2,000 tubers of varying size. This is an ideal substitute for the potato. (*Fairbrother.*)

- 61331. CRATAEGUS ORIENTALIS Pall. Malaceæ. Hawthorn.
- rom Kew, England. Seeds presented by Dr. Arthur W. Hill, Director, Royal Bo-tanic Gardens. Received November 10, 1923. Numbered July, 1924. From Kew, England.

A shrub or small tree, native to dry, stony places in Asia Minor and southeast-ern Europe. According to the late Frank N. Meyer (in his note under S. P. I. 26765), it is able to withstand much heat and drought. The flowers are in dense corymbs, and the function of able red days and the starts. and the fruits are dark red.

For previous introduction see S. P. I. No. 26765.

- 61332 and 61333. TRIFOLIUM PRATENSE L. Fabaceæ. Red clover.
- From Edinburgh, Scotland. Seeds presented by John Donaldson & Co. through G. C. Edler, Bureau of Agricultural Economics. Received August 15, 1924.

Local clover strains from two localities in England, introduced for testing by clover specialists.

61332, No. 1. 61333. No. 2.

61334 to 61352.

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From Sapporo, Japan. Seeds presented by J. Minami, College of Agriculture, Sap-poro, through C. R. Ball, Bureau of Plant Industry. Received August 15, 1924.

Introduced for specialists engaged in experimenting with various types of cereals.

61334 to 61338. HORDEUM DISTICHON PAL-Poaceæ. Two-rowed barley. MELLA Harlan.

61334. Chevalier (spring).

61335. Golden melon (spring).

- 61336. Hanna (spring).
- 61337. Hokudai No. 1 (spring).
- 61338. Date No. II × Hokudai No. I (winter).
- 61339 to 61342. HORDEUM VULGARE PALLI-Poaceæ. Six-rowed barley. DUM Seringe.
 - 61339. Erhardt Frederiksens (spring).
 - 61340. Imperial (spring).
 - 61341. Date No. II (winter).
- 61342. Date No. II \times Hokudai No. I (winter).
- 61343 to 61350. TRITICUM AESTIVUM L. (T. vulgare Vill.). Poaceæ. Common wheat.
 - 61343. Green Mountain (spring).
 - 61344. Sapporo (spring).
 - 61345. White fife (spring).
 - 61346. Akakawa aka (red grain, winter).
 - 61347. Red genealogical (winter).

61348. Sandmilka (winter).

- 61349. Shirokawa shiro (white grain, winter).
- 61350. White Champion (winter).
- 61351 and 61352. TRITICUM DURUM Desf. Poaceæ. Durum wheat. 61351. Medea (spring).

61352. Roumania (spring).

- 61353 to 61355. TRIFOLIUM PRATENSE L. Fabaceæ. Red clover.
- From Lemberg, Poland. Seeds received Au-gust 28, 1924. Introduced for testing by clover breeders.

61353. (No. 1.) 61355. (No. 3.)

61354, (No. 2.)

- 61356 to 61365. CICER ARIETINUM L. Fabaceæ. Chick-pea.
- From Poona. Bombay, India. Seeds pre-sented by Dr. William Burns, Economic Botanist, College of Agriculture. Re-ceived August 20, 1924. Notes by Doctor Burns.

Introduced for trial as stock feed in the southwestern United States.

- 61356, No. 1. White variety from Poona.
- 61357. No. 2. Yellow variety from Poona.
- 61358. No. 3. Small, yellow variety from Dohad.
- 61359. No. 4. Small, white variety from Dohad.
- 61360. No. 5. Small, red variety from Dohad.
- 61361. No. 6. Small variety from Ahmednagar.
- 61362. No. 7. Yellow variety from Belgaum.
- 61363. No. 8. From Belgaum.

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61356 to 61365—Continued.

61364. No. 9. Karachi from Mandalay.

61365. No. 10. Burmese from Mandalay.

61366 and 61367.

- From Tripoli, Libia, North Africa. Seeds presented by Dr. E. O. Fenzi. Received August 20, 1924.
 - 61366. EUPHORBIA ABYSSINICA G m e l. Euphorbiaceæ.

This may prove of special interest, since it grows in the poorest and driest soil, attaining a height of 30 to 40 feet, and yields a large quantity of latex containing 5 per cent of first-class rubber. (*Fenzi.*)

For previous introduction see S. P. I. No. 61329.

61367. SALVADORA PERSICA L. Salvadoraceæ.

A shrub or small tree which grows commonly in dense clumps on the shores of Lake Chad, Africa. The seeds contain about 45 per cent of fat, according to Holland (Useful Plants of Nigeria); this is suitable for making candles. The pungent shoots and leaves are eaten as salad and also given to stock as fodder.

For previous introduction see S. P. I. No. 53845.

- 61368 to 61372. PHASEOLUS CALCARATUS Roxb. Fabaceæ. Rice bean.
- From Mandalay, Burma. Seeds presented by M. McGibbon, Economic Botanist, Mandalay, through C. V. Piper, Bureau of Plant Industry. Received August 20, 1924.

Five varieties of rice beans obtained for testing by forage-crop specialists.

61368. Be or Pe yin.

61369. Bete or Chinpè.

61370. Betè Be or Chinpè (large).

61371. Betè Be or Chinpè (small).

61372. Kachin-pè.

61373. BAMBOS POLYMORPHA Munro. Poaceæ. Bamboo.

From Debra Dun, United Provinces, India. Seeds presented by P. C. Kanjilal, Forest Bolanist, Forest Research Institute and College. Received August 13, 1924.

A tropical species found in Bengal and Burma. The plants grow in tufts or chumps, often reaching a height of 60 to 80 feet. The leaves are small, 3 to 7 inches long, and from one-fourth to onehalf an inch wide. Suitable only for extreme southern Florida and our tropical insular regions; should thrive in the Canal Zone. The plant is not abundant in the Indian forests but is often met with in tropical botanical gardens such as the one at Calcutta, India.

61374 to 61377. COLOCASIA spp. Araceæ. Taro.

From Papecte, Tahiti. Tubers presented by C. C. Campbell. Received August 25, 1924. Notes by Mr. Campbell.

61374. COLOCASIA Sp.

Black variety; a dry-land taro from my plantation on the island of Moorea, at an altitude of about 300 feet. 61374 to 61377—Continued.

61375. COLOCASIA sp.

This is called "Chinese taro" here; I bought it in the market at Papeete.

61376. COLOCASIA sp.

Red variety, from the same locality as the black variety [S. P. I. No. 61374].

61377. COLOCASIA Sp.

This is called "tarua" here; it is a very good dry-land plant and was grown on my plantation on Tahiti, at an altitude of 50 feet.

61378 to 61384. TRIFOLIUM PRATENSE L. Fabaceæ. Red clover.

From Czechoslovakia. Seeds presented by Dr. Rudolf Kuraz, Czechoslovakian Legation, Washington, D. C. Received August 25, 1924.

Local strains of red clover introduced from Czechoslovakia for breeding tests.

61378. No. 1-B.	61382. No. 5-B.
61379. No. 2–B.	61383. No. 6-B.
61380. No. 3-B.	61384. [No notes.]
61381, No. 4-B.	

61385. ACROCOMIA SCLEROCARPA Mart. Phœnicaceæ. Macauba palm.

From Vera Cruz, Mexico. Seeds presented by Dr. C. A. Purpus, Zacuapam. Received August 26, 1924.

A graceful, spiny, tropical American palm, 30 to 45 feet high, with a terminal cluster of narrow, pinnate leaves. When matured, the inside of the trunk turnishes excellent starch equal in quality to that of the cassava plant. The leaves yield strong fiber, utilized by the natives of Paraguay for making hammocks. From the yellowish fruits, about an inch in diameter, an excellent edible oil is expressed.

For previous introduction see S. P. I. No. 53487.

61386 and 61387.

From La Providencia, Chiapas, Mexico. Presented by Dr. C. A. Purpus. Received August 20, 1924.

61386. CHAMAEDOREA TEPEJILOTE Liebm. Phœnicaceæ. Palm.

Seeds of a relative of the pacayito (Chamacdorca elegans): this is a slightly larger palm, becoming about 10 feet high, with leaves 4 feet'long. Doctor Purpus says that the undeveloped flowers make an excellent vegetable and are eaten throughout the State of Vera Cruz, Mexico. It grows best in shady places.

61387. XANTHOSOMA VIOLACEUM Schott, Araceæ. Yautia.

Corms of a very handsome Mexican plant, related to the elephant-ear. The leaves are dark bluish green with very dark stems.

61388 to 61392.

- From Omsk. Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.
 - 61388. AELUROPUS LITTORALIS (GOUAN) Parl. Poaceæ. Grass.

A hardy grass which thrives in sandy places and is said to yield hay of high quality.

61388 to 61392—Continued.

61389 to 61391. AGROPYRON Spp. Porceæ. Grass.

61389. AGROPYRON ORIENTALE (L.) Roem. and Schult.

An annual, much-branched grass, of prostrate-ascending, habit, native to sandy places in Asia Minor and Turkestan.

61390. AGROPYRON SIBIRICUM (Willd.) Beauv.

A perennial, cespitose grass, native to Siberia, with erect or ascending stems about 15 inches high.

For previous introduction see S. P. I. No. 57222.

61391. AGROPYRON TRITICEUM Gaertn.

An annual Siberian grass, much branched at the base, with stems 8 inches or less in length.

61392. ALHAGI PSEUDALHAGI (Bieb.) Desv. (A. camelorum Fisch.). Fabaceæ. Camel's thorn.

The camel's thorn is a very prickly, herbaceous, perennial plant, native to central Asia. It grows on very dry lands, often strongly alkaline, but is likely to become a serious weed if allowed to get beyond control. The pinkish brown flowers appear to be rich in nectar. Introduced for forage-crop specialists.

61393. ACACIA CAVENIA (Molina) Bertero. Mimosaceæ. Cavan.

From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

A much-branched, spiny shrub about 20 feet high, native to Chile. The large, globular flower heads are deep yellow and very fragrant. A good hedge plant.

61394 to 61401.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

61394. AMMODENDRON KARELINI Fisch. and Mey. Fabaceæ.

A yellow-flowered shrub, native to the shores of the Caspian Sea.

61395. ARTEMISIA SONGARICA Schrenk. Asteraceæ. Wormwood.

A low, shrubby plant, closely related to the wormwoods.

61396 to 61398. ASTRAGALUS SPD. Fabaceæ.

61396. ASTRAGALUS CONTORTUPLICATUS L.

An annual plant, with erect or ascending stems 4 to 15 inches long, native to southern Europe.

61397. ASTRAGALUS TESTICULATUS Pall.

A perennial, cespitose, densely hairy astragalus from the desert regions of southern Siberia.

61398. ASTRAGALUS VULPINUS Willd.

A perennial astragalus from the desert regions of southeastern Siberia.

61399, AVENA SATIVA L. Poaceæ. Oats.

 ${\bf A}$ local strain introduced for cultural tests.

61394 to 61401—Continued.

61400. BROMUS DANTHONIAE Trin. Poaceæ. Grass.

An annual grass, usually upright or ascending in habit, native to southern Europe and central Asia.

61401. BROMUS JAPONICUS Thunb. Poaceæ. Grass.

A biennial, upright or ascending grass of wide distribution in Europe and Asia. It commonly becomes 1 to 2 feet high.

61402. MEDICAGO SATIVA L. Fabaceæ. Alfalfa.

From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

June 10, 1924. These seeds were procured through Williamson & Co., and are said to come from the Huasco Valley. (Westover.)

61403. CAPPARIS SPINOSA L. Capparidaceæ. Caper.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A trailing shrub armed with stipular spines, with leathery roundish leaves and large, white flowers. The buds are pickled as "capers." Native to the Mediterranean region.

61404 to 61406. PROSOPIS spp. Mimosaceæ.

From South America. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924. Notes by Mr. Westover.

61404. PROSOPIS sp.

Lampa, Chile. May 13, 1924. Trees very large, with trunk sometimes attaining a diameter of $1\frac{1}{2}$ feet or more.

61405. PROSOPIS Sp.

Paso de los Andes, Mendoza, Argentina. March 31, 1924.

61406. PROSOPIS sp.

Alto del Carmen, Chile. June 1, 1924.

61407. CICER ARIETINUM L. Fabaceæ. Chick-pea.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

Introduced for testing as forage.

61408 to 61410. PASPALUM DISTICHUM L. Poaceæ. Grass.

From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924. Notes by Mr. Westover.

61408. Cunaco. May 7, 1924.

- 61409. June 5, 1924. From the estate of Señor Izquierdo, Santa Ines.
- 61410. May 7, 1924. Collected near Nancagua. Forms the main pasture grass in this region and grows as a weed in the cultivated fields.

61411 and 61412.

- From Omsk. Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.
 - 61411. CRYPSIS ACULEATA (L.) Ait. Poaceæ.
 Grass.

A spreading annual grass, native to the Mediterranean region.

61412. DELPHINIUM RUGULOSUM Boiss. Ranunculaceæ. Larkspur.

An annual plant, described by Boissier (Flora Orientalis) as being 4 to 5 inches high, often with several stems, and with grayish blue flowers.

61413 and 61414. PASPALUM DISTICHUM L. Poaceæ. Grass.

From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

- 61413. March 31, 1924. This grass, similar to carpet grass, is found around irrigating ditches and roadways and in vineyards near Mendoza. (Westover.)
- 61414. April 5, 1924. Collected at Sucre. This grass, highly relished for pasture, is common along the roads and in closely grazed pastures. (Westover.)

61415 to 61419.

- From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.
 - 61415. ECHINOCHLOA CRUSGALLI (L.) Beauv. Poaceæ. Barnyard grass. Introduced for testing by forage-plant
 - specialists. 61416. ELYMUS ARALENSIS Regel. Poaceæ. Grass.
 - A tall, erect, perennial grass, native to Siberia.
 - 61417. ELYMUS GIGANTEUS Vahl. Poaceæ. Grass.

A tall, erect, perennial grass, native to Siberia.

61418. EPHEDRA DISTACHYA L. Gnetaceæ.

A low, decumbent shrub with pale or bluish green stems and scarlet, berrylike fruits. Native to southern Europe and western Asia.

61419. ERAGROSTIS MINOR Host. Poaceæ. Grass.

An annual, much-branched grass, with jointed, ascending stems up to a foot and a half long. Widely distributed throughout the North Temperate Zone.

- 61420. PASPALUM DISTICHUM L. POaceæ. Grass.
- From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

June 7, 1924. Seeds presented by Enrique Matte, Buin. (Westover.)

- 61421. EVERSMANNIA SUBSPINOSA (Fisch.) B. Fedtsch. Fabaceæ.
- From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A shrubby, slightly spiny plant, native to arid regions in southeastern Russia.

- 61422. PHALARIS BULBOSA JUSI. Poaceæ.
- From Buenos Aires, Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

April 8, 1924. Obtained from the Bridger brothers. (Westover.)

61423 to 61427.

- From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.
 - 61423. FRITILLARIA KARELINI (Fisch.) Baker. Liliaceæ.

A dwarf, compact species, which, according to Boissier (Flora Orientalis), has lilac flowers produced in 3 to 12 flowered racemes.

- 61424 to 61427. GLYCYRRHIZA spp. Fabaceæ. Licorice.
 - 61424. GLYCYRRHIZA ASPERA Pall.

A perennial plant with ascending stems and purplish flowers; found native in semiarid regions of southern Siberia.

61425. GLYCYRRHIZA GLABRA L.

A perennial, somewhat woody plant, with thick, subterranean runners and stout, upright stems sometimes 3 feet high. Native to southern Europe and Turkestan.

61426. GLYCYRRHIZA TRIPHYLLA Fisch. and Mey.

An erect, perennial plant, 1 to 2 feet high, with pinkish white flowers. Native to Siberia.

61427. GLYCYRRHIZA URALENSIS Fisch.

An erect perennial plant with hairy stems; native to the Ural Mountains, Siberia. Introduced for testing as forage.

- 61428. POLYPOGON CRINITUS Trin. Poaceæ. Grass.
- From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

Boros. May 24, 1924. (Westover.)

61429. HELEOCHLOA SCHOENOIDES (L.) Host. Poaceæ. Grass.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A low, perennial, spreading grass with dense, spikelike panicles. Native to the Mediterranean region.

61430 to 61432. TRITICUM AESTIVUM L. (T. vulgare Vill.). Poaceæ.

Common wheat.

From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

These wheats, procured from a seedsman in Chile, are said to be the three varieties most commonly grown. (Westover.)

61430. Blanco wheat.

61431. Egypto wheat.

61432. Florence wheat.

61433. LIMONIUM OTOLEPIS (Schrenk) Kuntze (Statice otolepis Schrenk). Plumbaginaceæ. Sea lavender.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A perennial plant, native to Turkestan, with small, narrowly ovate leaves and short spikes of white flowers.

61434 and 61435.

- From South America. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924. Notes by Mr. Westover.
 - 61434. SOLANUM MURICATUM Ait. Solanaceæ. Pepino,

Ovalle, Chile. June 1, 1924. One sees large acreages of this plant in the small irrigated valleys of northern Chile. The fruits, highly prized among the natives, are very sweet and juicy and rather palatable. They are sold everywhere in the markets, and the natives even flock around all the trains in an effort to sell them.

61435. Sorghastrum sp. Poaceæ. Grass.

April 8, 1924. These seeds, said to have come originally from Brazil, were purchased in a store in Buenos Aires under the name of Yarogua. They are especially suited to wet lands.

61436 to 61438.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924. 61436. MEDICAGO SATIVA L. Fabaceæ.

Alfalfa.

Introduced for cultural and comparison tests.

61437. MELILOTUS ALBA Desr. Fabaceæ. White sweet clover.

Introduced for testing by forage-crop specialists.

61438. PEGANUM HARMALA L. Zygophyllaceæ.

An erect, strong-scented, shrubby plant, 2 to 3 feet high, with irregularly cut leaves and terminal, white flowers. Native to the Mediterranean region.

61439 and 61440.

- From Argentina. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.
 - 61439. SPOROBOLUS SUBINCLUSUS Phil. Poaceæ. Grass.

March 30, 1924. This grass is abundant in the pastures around Lupan de Cuyo, Mendoza, but is apparently not relished by cattle. (Weatover.)

61440. STENOTAPHRUM SECUNDATUM (Walt.) Kuntze. Poaceæ. Grass.

April 8, 1924. Collected southeast of Buenos Aires, where it is highly esteemed as a pasture grass. (Westover.)

- 61441. POLYPOGON MARITIMUS Willd. Ponceæ. Grass.
- From Omsk. Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A low, annual grass, with laxly ascending stems not over a foot in length. Native to the Mediterranean region. 61442 and 61443.

From South America. Seeds collected by H. L. Westover, Bureau of Plant Industry, Received July 14, 1924. Notes by Mr. Westover.

61442. STIPA PAPPOSA Nees. Poaceæ. Grass.

April 5, 1924. Collected near Sucre, Argentina. This grass is apparently not relished by cattle so long as other grasses are available.

61443. VICIA sp. Fabaceæ. Vetch.

Placilla, Chile. May 24, 1924.

61444. Sphaerophysa salsula (Pall.) DC. Fabaceæ.

From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.

A perennial herbaceous plant, native to Turkestan, with erect stems and racemes of purplish flowers.

61445. ZEA MAYS L. Poaceæ. Corn.

From Chile. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924.

Hacienda El Tambo, Mallao. May, 1924. (Westover.)

61446 and 61447.

- From Omsk, Russia. Seeds presented by Prof. K. Murashinsky, Siberian Agricultural Academy. Received June 24, 1924.
 - 61446. TRIGONELLA ARCUATA Meyer. Fabaceæ.

An annual leguminous plant found native in dry situations in Asia Minor.

61447. TULIPA BORSZCZOWI Regel. Liliaceæ. Tulip.

A Russian tulip with stems 12 to 18 inches high, bluish green, narrowly ovate leaves up to 6 inches in length, and red flowers with black blotches at the base of the petals.

61448 to 61477. HOLCUS SORGHUM L. (Sorghum vulgare Pers.). Poaceæ. Sorghum.

From Khartum, Anglo-Egyptian Sudan. Seeds presented by the Government Experiment Farm, through H. V. Harlan, Bureau of Plant Industry. Received August 25, 1924.

61448. Abu Carakish.

61449. Abu Khimmer.

61450. Abu Shanab No. 9.

61451. Ahamar No. 21.

61452. Beid-el-Chor.

61453. Dura Abiad No. 1.

61454. Dwarf Feterita No. 811.

61455, Dwarf Hegari.

61456. Dwarf Milo No. 1933.

61457. El Hacherag.

61458. *Feterita*.

61459, Feterita No. 25.

61460, Gassabi.

61461. Hegeiri.

61448 to 61477—Continued.

61462. Hemesi.

61463. Higiri No. 6.

61464. Kalm Ahmer.

61465, Khamis Wad Gah.

61466. Korgi No. 1.

61467. Milo kaoliang (hybrid) No. 1473.

61468. Mogd Wad Fadl.

61469. Mugeed.

61470. Neili Neili No. 7.

61471. Safra Bahr-el-Abiad.

61472. Safra el Dahara.

61473. Shal Shalih No. 4.

61474. Shallouft el Naga.

61475. Shikori No. 2.

61476. Um Gorirrat.

61477. Waga.

61478 to 61505.

From Amani, Tanganyika Territory, Africa. Seeds presented by Alleyne Leechman, Director, Biological and Agricultural Institute. Received August 27, 1924.

61478. ADENANTHERA MICROSPERMA Teijsm. and Binn. Mimosaceæ.

No. 12. An East Indian tree, resembling the mimosas in general appearance; it is occasionally planted in eastern Java as a shade tree, according to C. A. Backer (Schoolfiora voor Java).

61479 to 61481. ALBIZZIA spp. Mimosaceæ.

61479. ALBIZZIA ADIANTHIFOLIA (Schum.) W. F. Wight (A. fastigiata E. Mey.).

No. 16. This tropical African species, like many others of the genus, is a large, handsome tree of spreading habit, which is suitable as a shade tree in tropical or perhaps subtropical regions.

For previous introduction see S. P. I. No. 49288.

61480. ALBIZZA CHINENSIS (Osbeck) Merr. (A. stipulata Boiv.).

No. 20. A large, rapid-growing tree, native to the subtropical regions of eastern India. It is said by Watt (Dictionary of Economic Products of India) to have been found very satisfactory in Assam as a shade tree for tea. The roots do not penetrate the soil deeply, and the foliage does not make a dense shade.

For previous introduction see S. P. I. No. 51143.

61481. CASSIA SIAMEA Lam. Cæsalpiniaceæ.

No. 19. The kassod tree is described by J. F. Rock (Ornamental Trees of Hawaii, p. 99) as being rather low, with twiggy branches and bluish leaves up to a foot in length. In the late summer and early fall, when all other showy leguminous trees have ceased to bloom, this tree bears axillary and terminal panicles of attractive bright-yellow flowers. In Honolulu it has been planted more or less extensively in private grounds. The native home of the kassod tree is southern India and Malaysia.

For previous introduction see S. P. I. No. 54924.

61478 to 61505-Continued.

61482. BERRIA AMMONILLA Roxb. Tiliaceæ.

No. 47. "Trincomali wood" is the name under which the very hard, durable, dark-red wood of this Indian tree is exported, according to Watt (Dictionary of the Economic Products of India). The wood is used for making agricultural implements and for other purposes where toughness and hardness are desired. The tree is large, with long-stemmed, heart-shaped leaves and dense racemes of small, white flowers. Its distribution includes the Malay Archipelago and the Philippines.

61483. CASTILLA ELASTICA Cerv. Moraceæ. Rubber tree,

No. 75. Seeds of this tropical American rubber tree have been obtained for the use of department rubber specialists.

For previous introduction see S. P. I. No. 42363.

61484. CASUARINA DISTYLA Vent. Casuarinaceæ.

No. 76. Unlike many of the betterknown casuarinas, this species is usually a small shrub 2 to 3 feet high. It is common in Tasmanla and in parts of southern Australia.

61485. COFFEA BUKOBENSIS Zimmerm. Rubiaceæ. Coffee.

No. 104. The coffee grown in the vicinity of Bukoba, Tanganyika Territory, was formerly supposed to be a variety of *Coffea orabica*, but Zimmermann (Der Pflanzer, vol. 4) maintains that it is a separate species and has named it *C. bukobensis.* The differences are in the venation of the leaves and flower structure, and culturally this species is very similar to *C. arabica.*

61486. COFFEA QUILLOU P. J. S. Cramer. Rubiaceæ. Coffee,

No. 108. Introduced for cultural and comparison tests in tropical America.

Introduced into the East Indies from Libreville, French Congo; in 1901 this was found to be distinct from Coffea robusta. The leaves are narrower and brighter green and the young trees are pyramidal in habit. The berries are hight red, not dark crimson, and oblong. The crop matures later than C. robusta and under favorable circumstances is larger than that of any other coffee. Under less favorable conditions C. robusta is more productive. (Note taken from Tea and Coffee Trade Journal, vol. 35, p. 47.)

61487 and 61488. CRYPTOMERIA JAPONICA (L. f.) D. Don. Pinaceæ.

61487. No. 119. Var. araucarioides. "A variety of pyramidal habit resembling Araucaria excelsa." (Alfred Rehder, Arnold Arboretum.)

61488. No. 120. Var. glabra. A glabrous variety.

61489. CUPRESSUS FUNEBRIS Endl. Pinaceæ. Mourning cypress.

No. 123. Var. glauca. A glaucous variety of the mourning cypress (*Cupressus* funebris); the typical form is a widespreading, pendulous, Chinese species.

61478 to 61505—Continued.

61490. FICUS CHLAMYDODORA Warb. Moraceæ.

No. 171. A stately tree grown largely as a shade tree in parts of tropical Africa because of the handsome foliage and brick-red branches. According to Holland (Useful Plants of Nigeria), twice a year it bears abundant crops of peach-colored figs, which are fairly sweet and juicy.

61491. FUNTUMIA ELASTICA (Preuss) Stapf. Apocynaceæ. Lagos rubber tree.

No. 177. A large forest tree which is very widely distributed throughout central Africa and is the source of Lagos rubber, which is of excellent quality. It is being introduced with a view of including it in the collection of rubber plants now being brought together in southern Florida for investigational purposes.

For previous introduction see S. P. I. No. 58963.

61492. LANDOLPHIA KIRKII Dyer. Apocynaceæ.

No. 205. A number of native climbing plants are used in East Africa as sources of native rubber, and this shrubby vine is one of the most important, according to Thiselton-Dyer (Flora of Tropical Africa). It has thin, tough leaves, loose clusters of whitish flowers, and roundish fruits 1 to 3 inches in diameter.

For previous introduction see S. P. I. No. 52583.

61493. LANDOLPHIA STOLZII Busse. Apocynaceæ.

No. 206. A number of Landolphias are being introduced from tropical Africa for testing by department rubber specialists. This one is described by Thiselton-Dyer (Flora of Tropical Africa) as a climbing shrub with small, oval leaves, dense clusters of white, sweet-scented flowers, and fruits resembling small oranges.

61494. LILIUM REGALE Wilson. Liliaceæ. Royal lily.

No. 210. Seeds of the royal lily as grown in Africa, introduced for the use of lily breeders.

61495. LINOMA ALBA (Bory) O. F. Cook. Phœnicaceæ.

No. 8. A slender, spineless, pinnateleaved palm resembling Areca in habit, 30 feet or more in height, and native to tropical Asia. The leaves of the mature plant are 8 to 12 feet long. When young this makes a very desirable house palm.

For previous introduction see S. P. I. No. 43583.

61496 and 61497. MANIHOT GLAZIOVII Muell. Arg. Euphorbiaceæ.

Ceara rubber, obtained from this tree, is one of the important rubbers of commerce. These seeds are introduced for testing by rubber specialists.

For previous introduction see S. P. I. No. 46809.

61496, No. 217.

61497. No. 216. Received as Manihot dichotoma, but the seeds are not of that species.

61478 to 61505—Continued.

61498. MASCARENHASIA ELASTICA Schum. Apocynaceæ.

No. 220. A shrubby tropical African tree, 20 to 30 feet high, which furnishes rubber said to be of about the same quality as that from *Landolphia kirkii*. Introduced for testing by rubber specialists.

61499. MONODORA MYRISTICA (Gaertn.) Dunal. Annonaceæ. Calabash nutmeg.

No. 225. The calabash nutmeg is described in Curtis's Botanical Magazine (pl. 3059) as a large, spreading, tropical African tree, with shining, pale-green leaves, and fragrant flowers. The latter, borne singly in the leaf axils, are about 6 inches across, with six petals; three of these are spreading and yellow. the other three are erect and creamy white, and all are dotted with red. The fruit, 4 to 6 inches in diameter, contains a number of cylindric seeds about an inch long; these have a flavor resembling closely that of the common nutmeg.

For previous introduction see S. P. I. No. 47500.

61500. MUSA TEXTILIS Nee. Musaceæ. Abaca.

No. 227. Abaca seeds introduced for testing by fiber-plant specialists.

For previous introduction see S. P. I. No. 57696.

61501. PTYCHOSPERMA sp. Phœnicaceæ. Palm.

No. 34. Palms of this genus have smooth, ringed trunks, crowned at the summit by a dense cluster of pinnate leaves.

61502. SCHIZOLOBIUM PARAHYBUM (Vell.) Blake (S. excelsum Vog.). Cæsalpiniaceæ. Bacarabú.

No. 275. A tall leguminous tree, sometimes 120 feet high in Brazil, its native country, with large, handsome, fernlike leaves and large panicles of yellow flowers. It is of possible value as a shade and ornamental tree for the warmest parts of Florida.

For previous introduction see S. P. I. No. 45621.

61503. SYZYGIUM OWARIENSE (Beauv.) Benth. (Eugenia owariensis Beauv.). Myrtaceæ.

No. 169. A tropical African tree, 30 to 40 feet high, closely related to the jambolan (Syzygium jambolana). The small fruits are eaten by the natives of Nigeria, according to Holland (Useful Plants of Nigeria), and the tree is good for timber.

61504. TELFAIREA PEDATA (J. E. Smith) Hook. Cucurbitaceæ.

No. 288. In the eastern sections of tropical Africa the roundish seeds produced by this clinging shrub are bolled and caten by the natives. The perennial stems become 50 to 100 feet long; the flowers are pale purple, and the oblong fruits, 2 to 3 feet long; contain many seeds. These seeds also yield an abundance of oil which is said to be equal in quality to olive oil, according to an analysis made at the Imperial Institute, London.

For previous introduction see S. P. 1. No. 55504.

61478 to 61505—Continued.

61505. TERMINALIA BELLERICA (Gaertn.) Roxb. Combretaceæ.

No. 291. The small, round fruits of this handsome tropical Indian tree have been exported from India for tanning purposes under the name of myrobalans. The yellowish gray wood is used for general construction. The tree also has merit as a shade tree for avenues, with its huge buttressed trunk and long horizontal branches.

For previous introduction see S. P. I. No. 59686.

61506 to 61592. HORDEUM spp. Poaceæ.

- From Leningrad, Russia. Seeds presented by Prof. N. I. Vavilov, Director, Bureau of Applied Botany and Plant Breeding. Received July 11, 1924. Notes by Professor Vavilov.
 - 61596. HORDEUM DISTICHON NUDUM L. Two-rowed barley.
 - No. 3773. 61507 to 61510. Hordeum distiction

PALMELLA Harlan, Two-rowed barley. Pure-line varieties.

61507. No. 0114. Province of Tiflis.

61508. No. 0149. Province of Kutais,

61509. No. 0110. Province of Erivan.

61510. No. 0624. Province of Erivan.

- 61511 to 61568. HORDEUM VULGARE COE-LESTE L. Six-rowed barley. From Mongolia 61511. No. 3878. 61520. No. 3927. 61512. No. 3880. 61521. No. 3929. 61522. No. 3942. 61513. No. 3886. 61514. No. 3887. 61523, No. 3998. 61515. No. 4242. 61524. No. 4020. 61516. No. 3904. 61525. No. 4023. 61526. No. 4024. 61517. No. 3912.
 - 61518.
 No. 3922.
 61527.
 No. 4026.

 61519.
 No. 3923.
 61528.
 No. 4028.
 - 61529 to 61559. Subvariety himalayense. 61529, No. 3939. 61545, No. 4035. 61530. No. 3938. 61546. No. 4037. 61531, No. 3945. 61547, No. 4038. 61532, No. 3985. 61548, No. 4039. 61533. No. 3995. 61549, No. 4040. 61534, No. 3997. 61550. No. 4041. 61535. No. 4001. 61551. No. 4042. 61536, No. 4007. 61552, No. 4043. 61537, No. 4008. 61553, No. 4060. 61538. No. 4017. 61554. No. 4061. 61539. No. 4019. 61555, No. 4062. 61540, No. 4029. 61556, No. 4068. 61541. No. 4030. 61557. No. 4071. 61542, No. 4031. 61558. No. 4074. 61543, No. 4032. 61559. No. 4075. 61544. No. 4034.

61560 to 61568. Subvariety violaceum.

61506 to 61592-Continued.

6156 0 .	No. 3885.	61565.	No. 3921.
61561.	No. 3917.	61566.	No. 3927.
6156 2 .	No. 3918.	61567.	No. 4000.
6156 3 .	No. 3919.	61 568 .	No. 4082.
61564.	No. 3920.		

61569. HORDEUM VULGARE NIGRUM (Willd.) Beaven. Six-rowed barley. No. 017. Province of Don. A pure-

line variety.

61570 to 61592. HORDEUM VULGARE PAL-LIDUM Seringe. Six-rowed barley.

61570 to 61574. Pure-line varieties.

61570. No. 099. Province of Erivan.

61571. No. 0210. Province of Tiflis.
61572. No. 0315. Province of Tiflis.
61573. No. 0303. Province of Vologda.

61574. No. 0304. Province of Vologda.

61575. No. 2789. Province of Archangel.

61576 to 61591. From Mongolia.

61576. No. 3926.	61584, No. 4064.
61577. No. 4044.	61585, No. 4065,
61578. No. 4147.	61586, No. 4069.
61579. No. 4052.	61587. No. 4070.
61580, No. 4053.	61588, No. 4073.
61581. No. 4055.	61589. No. 4077.
61582. No. 4059.	61590. No. 4079.
61583. No. 4063.	61591. No. 4088.

61592. Subvariety rikotense.

No. 0621. Province of Elizabetpol.

61593 and 61594.

From Darjiling, India. Seeds presented by G. H. Cave, Curator, Lloyd Botanic Garden. Received September 4, 1924.

61593. ACACIA CATECHU (L. f.) Willd. Mimosacew.

The pale-yellow gum obtained from this acacia has very strong adhesive powers and is considered a better substitute for gum arabic than that from *Acacia arabica*, according to Watt (Dictionary of the Economic Products of India). The tree is found wild in parts of India and Burma, where it sometimes becomes 70 feet high, though usually smaller. The leaves are very finely pinnate, and the white or pale-yellow flowers are in spikes.

For previous introduction see S. P. I. No. 55420.

61594. ALBIZZIA PROCERA (Roxb.) Benth. Mimosaceæ.

A tall, handsome, tropical tree, often 60 to 80 feet high, with yellowish or greenish white bark, large compound feaves, and terminal panicles of yellowish white flowers. In Burma, Bengal, and southern India, where the tree is native, the brown heartwood is used for making agricultural implements.

For previous introduction see S. P. I. No. 47832.

- '61595. XANTHOSOMA VIOLACEUM Schott. Araceæ. Yautia.
- From La Providencia, Chiapas, Mexico, Corms présented by Dr. C. A. Purpus, Received September 12, 1924.

A very handsome Mexican plant, related to the elephant-ear. The leaves are dark bluish green with very dark stems.

For previous introduction see S. P. I. No. 61387.

61596 to 61625.

- From Darjiling, India. Seeds presented by G. H. Cave, Curator, Lloyd Botanic Garden. Received September 4, 1924.
 - 61596, BISCHOFIA TRIFOLIATA (Roxb.) Hook. (B. jacanica Blume). Euphorblaceæ.

A tropical, deciduous tree which is sometimes called "red cedar" in northeastern India, because of the reddish color of the wood, which is used for general construction. The dense, oval crown and deep-green foliage make the tree very handsome.

For previous introduction see S. P. I. No. 51194.

(61597, BOEHMERIA MACROPHYLLA D. Don. Urticaceæ.

According to Watt (Dictionary of the Economic Products of India) this is a broad-leaved shrub, native to northeastern India at an altitude of about 4,000 feet. The bark yields a fiber much prized by the natives of India for making fish nets.

61598, BUCKLANDIA POPULNEA R. Br. Hamamelidaceæ.

J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry, who has collected this species in southwestern Yunnan, noi far from the border of India, describes it as a tall, straight tree, 60 to 80 feet high, of handsome appearance, and growing in that region at an altitude of 6,000 feet. The broadly triangular leaves are dark green, and the yellow male flowers are in globose heads.

For previous introduction see S. P. I. No. 56637.

61599. CHONEMORPHA MACROPHYLLA (Roxb.) Don. Apocynaceæ.

A large climber, native to Bengal and Burma, with milky sap from which a kind of caoutchouc is obtained.

For previous introduction see S. P. I. No. 57886.

61600. CLERODENDRUM COLEBROOKIANUM Walp. Verbenaceæ.

A low shrub, 4 to 8 feet high, which, according to Hooker (Flora of British India), has rosy purple or whitish flowers about an inch long, and small blue fruits about a third of an inch in diameter. It is native to Sikkim and Assam, India, at rather low altitudes, and will therefore probably not endure much cold.

61601. DALBERGIA SERICEA G. Don. Fabacer.

The branches and leaves of this small leguminous tree are covered with reddish brown hairs, and the young leaflets are clothed with silky down. The palelike flowers are in short, compact, axillary clusters.

61596 to 61625-Continued.

61602. DUABANGA SONNERATIOIDES Buch.-Ham. Lythraceæ.

A tall, deciduous tree from subtropical regions in northeastern India; the lightbrown bark peels off in thin flakes. The gray, soft, yellow-streaked wood, according to Watt (Dictionary of the Economic Products of India), is used extensively in Bengal and Assam for making tea boxes, as it seasons well, takes a good polish, and does not warp.

61603. ELAEOCARPUS SIKKIMENSIS Masters. Elæocarpaceæ.

A handsome, evergreen tree, native to Sikkim. India, with erect racemes of small, white flowers. The sharp-pointed, serrate leaves are about 8 inches long.

61604. ENGELHARDTIA SPICATA Leschen. Juglandaceæ.

This Himalayan relative of the walnut is a large, handsome tree, with thick brown bark which contains a large percentage of tannin. The wood shows a beautiful grain and is said not to warp.

61605. GYNOCARDIA ODORATA R. Br. Flacourtiaceæ.

This tree, one of the most common in the Chittagong Hills, was long considered to be the true source of chaulmoogra oil, which is now known to be *Tarakto*genos kurzii. The seeds of the former species contain neither chaulmoogric nor hydnocarpic acids, according to J. F. Rock (Bulletin 1057, United States Department of Agriculture). The tree is tall and handsome, with dark-green follage and pendent branches, and may prove of value as a shade tree for the warmest parts of the United States.

For previous introduction see S. P. I. No. 53121.

61606. HIPTAGE BENGHALENSIS (L.) KURZ (H. madablota Guertn.). Malpighiaceæ.

A tall, shrubby climber which is found wild throughout India in ravines and moist places. The thick, smooth leaves are 4 to 6 inches long, and the showy, fragrant flowers, with silky white, fringed petals, are in axillary racemes.

61607. HOLARRHENA ANTIDYSENTERICA (Roth) Wall. Apocynaceæ.

An attractive, white-flowered little tree found native throughout India. The soft, white wood is largely used, in India, for carved furniture, and the astringent bark is employed medicinally as an antidysenteric and anthelmintic, according to Watt (Dictionary of the Economic Products of India).

For previous introduction see S. P. I. No. 53579.

61608. LAGERSTROEMIA PARVIFLORA Roxb. Lythraceæ.

A tropical timber tree, native to India, closely related to the well-known crape myrtle (*L. indica*). According to Brandis (Forest Flora of India) the white fragrant flowers, half an inch across, are in terminal or axillary panicles, and the wood is tough, elastic, and durable.

For previous introduction see S. P. I. No. 53582.

61596 to 61625—Continued.

61609. LEUCOSCEPTRUM CANUM J. E. Smith, Menthaceæ.

A stout-branched, densely hairy tree, commonly about 30 feet high, with large narrowly ovate leaves, silvery hairy beneath and at times a foot long. The small white or pinkish flowers are in spikes. Native to temperate regions of the Himalayas.

For previous introduction see S. P. I. No. 57888.

61610. LEYCESTERIA BELLIANA W. W. Smith, Caprifoliaceæ.

A small, graceful shrub with opposite, membranous, lance-shaped leaves, and sessile, 2 to 4 flowered spikes of rosy white flowers. It is native in the Sikkim Himalayas near the Nepal border at an altitude of 10,000 feet.

For previous introduction see S. P. I. No. 55686.

61611. LEYCESTERIA GLAUCOPHYLLA (Hook. f. and Thoms.) C. B. Clarke. Caprifoliaceæ.

A slender plant, closely allied to the honeysuckle, with pale-green leaves and bearing, in the early winter, a profusion of pink flowers, in short axillary spikes. It is native to the subtropical Himalayas at an altitude of 5,000 feet.

For previous introduction see S. P. I. No. 55907.

61612. MEIBOMIA CEPHALOTES (Roxb.) Kuntze (Desmodium cephalotes Wall.). Fabaceæ.

A tall shrub, with densely silky, acutely angled, zigzag branches and dense umbels of deep-red flowers. It is native to the eastern Himalayas. Cattle and goats are said to be fond of the leaves, according to Watt (Dictionary of the Economic Products of India).

61613. MEIBOMIA GYROIDES (DC.) Kuntze (Desmodium gyroides DC.). Fabaceæ.

A shrubby leguminous plant, 8 to 10 feet high, from the warmer parts of the central and eastern Himalayas. It has hairy leaves and terminal clusters of red flowers.

61614. MORUS LAEVIGAGA Wall. Moraceæ. Mulberry.

An Indian mulberry which occurs wild and cultivated, though not common, in the lower Himalayas, where, according to Atkinson (Notes on the Economic Products of the Northwest Provinces), it forms a medium-sized tree with oval leaves up to 7 inches in length. In early spring the long - cylindrical, yellowish white or pale-purple fruits appear; these are edible, although of a rather insipidsweet flavor.

For previous introduction see S. P. I. No. 55692.

61615. MUCUNA MACROCARPA Wall. Fabaceae.

A woody climber, native to northeastern India, which is described by Hooker (Flora of British India) as having purple flowers and torulose pods over a foot in length.

61596 to 61625-Continued.

61616. PICEA MORINDOIDES Rehder. Pinaceæ. Spruce.

A Himalayan spruce of spreading habit, with slender pendulous branchlets. It becomes over 200 feet tall. The young cones are purple, turning to a pale brown when mature.

For previous introduction see S. P. I. No. 58912.

61617. PIPER ATTENUATUM Buch. - Ham. Piperacea.

A woody, rambling, tropical plant, native to the warmer parts of the eastern Himalayas. According to Hooker (Flora of British India) the female spikes are very slender, lengthening in fruit to about 9 inches. The long-stemmed leaves are roundish, with hairy lower surfaces.

61618, PORANA RACEMOSA Roxb. Convolvulaceæ. Snow creeper.

One of the most beautiful of the Himalayan plants, described by Watt (Dictionary of the Economic Products of India) as occurring in dense masses, climbing over other plants in the jungle, with the dazzling white flowers resembling patches of snow.

61619. PRUNUS CERASOIDES D. Don. (P. puddum Roxb.). Amygdalaceæ.

The pendulous flowers are campanulate and deep rosy red. They are said to appear before the foliage, which is a bright, glossy green. The tree, native to the highlands of Burma, is said to endure some frost in its native country. (Collingwood Ingram, Benenden, Kent, England, in note under S. P. I. No. 57680.)

61620. PYGEUM ACUMINATUM Colebr. Amygdalaceæ.

A tropical relative of the peach, native to Bengal, and described by Hooker as an evergreen tree with narrow oblong leaves, racemes of yellow-green flowers, and dark-purple fruits about an inch in diameter.

For previous introduction see S. P. I. No. 50721.

61621. QUERCUS INCANA Roxb. Fagaceæ. Oak.

A large, evergreen oak from the mountains of eastern India, with bark rich in fannin and acorns which are eaten by the wild animals of the Himalayas.

For previous introduction see S. P. I. No. 50722.

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61622. RUBUS NIVEUS Thunb. Rosaceæ.

A subtropical Rubus, distributed throughout the temperate Himalayas, Burma, Ceylon, and Java. The berries, which vary in color from red and orange to bluish, are very palatable and are commonly sold to Europeans in the bazaars of British India. Introduced for horticulturists experimenting with small fruits.

61623. SENECIO SCANDENS Buch.-Ham. Asteraceæ. Climbing groundsel.

An attractive, autumn-flowering composite from the Himalayas, with a woody stem and climbing habit. The yellow flowers are in few-flowered loose paniclelike clusters. Because of its rustic beauty and its habit of flowering in October, this plant is a very desirable ornamental.

61596 to 61625-Continued.

61624. TERMINALIA TOMENTOSA Wight and Arn. Combretaceæ. (Roxb.)

Wight and Arn. Combretaceæ. The tropical almond (*Terminalia ca-tappa*) is one of the most popular trees in southern Florida, where it is exten-sively planted as an ornamental shade tree. This closely related Asiatic species, found in many parts of India, is de-scribed by Brandis (Forest Flora of India) as a large tree, S0 to 100 feet tall, with hard, leathery leaves 5 to 9 inches long and erect, terminal racemes of dull-yellow flowers. The tree appears to thrive best in India in heavy, binding soils. The dark-brown wood is valued in India for general construction pur-poses. poses

For previous introduction see S. P. I. No. 53589.

61625. THYSANOLAENA MAXIMA (Roxb.) Kuntze. Poaceæ. Grass.

An ornamental, tropical grass, S to 10 feet high, which grows wild in the moun-tainous regions of northern India. The great masses of steel-gray inflorescences give the huge clumps a handsome ap-pearance during about four months of the year.

61626 to 61632.

From Panama. Seeds collected by David Fairchild, Bureau of Plant Industry. Re-ceived August 23, 1924.

61626. CHAMAEDOREA sp. Phœnicaceæ. Palm.

Several of the palms of this genus are attractive ornamentals. This one is said by Doctor Fairchild to be slender and of graceful habit.

61627. ELAEIS MELANOCOCCA Gaertn. Phœ-nicaceæ. Palm. nicaceæ.

A wide-spreading, low palm which grows in damp situations. It is closely related to the African oil palm (*Blacis* guineensis), and a clear oil is extracted from the kernels in small quantities by the natives, who prize it highly for cooking.

For previous introduction see S. P. I. No. 57801.

61628. INGA RUFESCENS Benth. Mimosaceæ.

A tropical tree with acacialike foliage and small heads of white flowers with showy red stamens. Native to Panama.

61629. MANICARIA SACCIFERA Gaertn. Phœnicaceæ. Palm.

Unlike most palms, this Brazilian spe-cies has entire leaves, which become about 30 feet in length and 5 feet in width. The trunk is erect, ringed, and unarmed, and 15 to 20 feet high. The natives of Brazil use the immense leaves of this palm for thatching their buts and also for making a coarse death also for making a coarse cloth.

For previous introduction see S. P. I. No. 45087.

61630. PRIORIA COPAIFERA Griseb. Cæsalpiniaceæ.

A large, handsome tree, native to cen-tral and northern South America, which yields a resin known commercially as balsam of copaiba, according to Pittler (Plantas Usuales de Costa Rica).

For previous introduction see S. P. I. No. 47998.

61626 to 61632-Continued.

61631. RHEEDIA LATERIFLORA L. Clusiaceæ.

The "hatstand tree" is a small tree, about 10 feet high, common in the woods of the island of Trinidad. It is noted for the regularity of its branching, and is frequently cut, fastened in a heavy base, and used as a hatstand.

For previous introduction see S. P. I. No. 45604.

61632. STERCULIA Sp. Sterculiaceae.

A number of sterculias are attractive shade trees, adapted for growing in the warmer parts of the United States. This one, sent in from Panama, will be grown for its possible ornamental value.

61633. ORYZA SATIVA L. POACEE. Rice.

From Manila, Philippine Islands. Seeds presented by H. E. Fernandez. Received September 15, 1924.

Introduced for rice-breeding experiments.

61634 to 61695.

- From Union of South Africa. Seeds col-lected by H. L. Shantz, Bureau of Plant Industry. Received August, 1924. Notes by Doctor Shantz.
 - 634. AESCHYNOMENE ELAPHROXYLON (Guill. and Perr.) Taub. (Herminiera elaphroxylon Guill. and Perr.). Fa-61634. baceæ. Ambash.

No. 240a. Lake Nyasa. April 22, 1924. Ambash forms the principal tree in the marshy lands and papyrus swamps about the central African lakes and is abundant in the upper Nile region. The plant has light foliage similar to that of the ordinary acacia, but differs in having very large pealike, orange-yellow flowers. It forms at times a trunk 10 inches in diameter, and the wood is ex-ceedingly light, a log 10 feet long weigh-ing only a few pounds. Along the up-per Nile it is used extensively in making rafts and huts, and should be valuable in a great many ways.

61635. ALOE ZEBRINA Baker. Lillaceæ.

No. 416. Near Nyamandslova, South-ern Rhodesia. June 12, 1924. An aloe, grown on swamp land, which blooms dur-ing the drought period. The very showy flower spike rises from a relatively small resetted. rosette.

61636. ANTHOSCHMIDTIA sp. Poaceæ. Grass.

No. 245. April 23, 1924. Mixed grass seed from Monkey Bay, Nyasaland. All are sand grasses, grown in a relatively arid country.

61637. Aristida sp. Poaceæ. Grass.

Bembezi, Southern Rhodesia. No. 381. June 10, 1924. Native grass used for hay.

61638. ASPARAGUS sp. Convallariaceæ.

Blantyre. May 21, 1924. No. 344. An ornamental asparagus.

61639. BABIANA sp. Iridaceae.

No. 442. Bathoen, Bechuanaland, June 16, 1924. From semiarid grass-lands. Attractive iridaceous flowers. The corms are eaten by baboons.

61634 to 61695—Continued.

61640. CITRULLUS VULGARIS Schrad. Cucurbitaceæ. Watermelon.

No. 409. Tjolotjo, Southern Rhodesia. June 12, 1924. Tsama melon, found growing under native conditions, furnishes water for travelers and wild game in the Kalahari Desert. It maintains itself in a wild state. Every effort should be made to establish this plant in the Southwest, where it would increase the value of the native range. It might also do well at the edge of the large sand-dune areas in California, Arizona, and New Mexico.

61641. CLEMATIS sp. Ranunculaceæ.

No. 334. Portuguese East Africa, between M'Khoma and Zomba. May 12, 1924. An herbaceous clematis, with greenish white flowers and white fruit clusters, which grows about 3 feet high, probably from a perennial root. Abundant in grasslands which are burned over each year at the end of the dry season.

61642. COMBRETUM PRIMIGENUM Marloth. Combretaceæ.

No. 406. Tjolotjo, Southern Rhodesia. June 11, 1924. A fine ornamental tree for a semiarid country. The wood is also valuable.

61643. COPAIVA COLEOSPERMA (Benth.). Kuntze (Copaifera coleosperma Benth.). Cæsalpiniaceæ.

No. 417. Victoria Falls, Southern Rhodesia. June 13, 1924. A beautiful, evergreen tree of excellent form and foliage, reaching a height of 60 feet. The wood is especially valuable and is known as bastard teak or occasionally known as Rhodesia teak. The native names are um-tshibi and m'sibi (or m'zoule).

For previous introduction see S. P. I. No. 49233.

61644. COPAIVA MOPANE (Kirk) Kuntze. Cæsalpiniaceæ.

No. 414. Tjolotjo, Southern Rhodesia. June 12, 1924. One of the most valuable timber trees, because of the resistance of the wood to attacks of termites. It grows in a semiarid country, where water may stand over the soil after heavy rains. The leaves are heavily lacquered and deep shiny green. The seeds look very much like the leaves. Native names are mopani, ili pani, muvanga, or mu wani.

61645. CRACCA sp. Fabaceæ.

No. 341. Between Zomba and Nyasaland. May 13, 1924. A small-podded legume, abundant in the lowlands.

61646. CROTALARIA Sp. Fabaceæ

No. 343. Blantyre, Nyasaland. May 21, 1924. A large-podded Crotalaria.

- 61647 and 61648. FLACOURTIA INDICA (Burm. f.) Merr. (F. ramontchi L'Herit). Flacourtiaceæ. Ramontchi. 61647 No 199 April 12 1924 Fruits
 - 61647. No. 199. April 12, 1924. Fruits small like red-fleshed plums but with several seeds. This sample was found in the market at Dar es Salaam.
 - in the market at Dar es Salaam. 61648. No. 390. Tjolotjo, Southern Rhodesia. June 11, 1924. A small plumlike fruit, with several seeds. The fruit is very good when eaten out of hand and excellent for making jelly. The tree is very attractive and would make a good ornamental in the semiarid South and West. It could also be used as a hedge plant.

61634 to 61695—Continued.

61649. GLADIOLUS sp. Iridaceæ.

No. 328. Near Didza, Nyasaland. May 12, 1924. A large red mottled variety.

61650. GLADIOLUS sp. Iridaceæ.

No. 347. M'Khoma, Nyasaland. May 12, 1924. This is one of the best native types. The plant is tall, and the reddish flowers are of good size.

61651. GREWIA sp. Tiliaceæ.

No. 425. Mochudi, Bechuanaland. June 15, 1924. The so-called "Somali" fruit. It is a small bush growing in a semiarid country.

61652. GREWIA sp. Tiliaceæ.

No. 426. Mochudi, Bechuanaland. June 15, 1924. A small, one-seeded fruit from a semiarid desert tree.

61653 to 61673. HOLCUS SORGHUM L. (Sorghum vulgare Pers.). Poaceæ. Sorghum.

61653 to 61656, Nos. 235 to 238. Between Blantyre, Nyasaland, and the Zambezi. April 22, 1924. Here the natives grow a very tall form of sorghum with large spreading open heads. It is remarkably uniform in height and shape of infloresence, but there are differences in color. These four heads represent range in type.

61653. No. 235. 61655. No. 237.

61654, No. 236. 61656, No. 238.

- 61657 to 61667. Nos. 348 to 358. May 13, 1924. The sorghum grown by the natives in this section is a very tall, open-headed type. I have seen none of the closed-head types in Nyasaland. The following numbers, although similar in size of plant and shape of head, differ in color of seed and hull. They may be accepted as typical of the sorghums grown in this section of Africa.
 - 61657. No. 348. Zomba. Light-red, white-grained type.
 - 61658. No. 349. White hull and seed.
 - 61659. No. 350. Dull-red hull and tan seed.
 - 61660. No. 351. Pink hull and white seed.
 - 61661. No. 352. Deep-red hull and white seed.
 - 61662, No. 353. Similar to No. 352 [S. P. I. No. 61661].
 - 61663. No. 354. This type has a darker hull than that of No. 352 [S. P. I. No. 61661].
 - 61664. No. 355.
 - 61665. No. 356. Very much like No. 352 [S. P. I. No. 61661].
 - 61666, No. 357. Very much like No. 354 [S. P. I. No. 61663].
 - 61667. No. 358. Magenta hull and light seed.
- 61668 to 61672. Nos. 420 to 424. June, 1924. Types of sorghum grown by the Bakagathala tribe in the semiarid region of Bechuanaland. Sorghum constitutes their principal food.

61634 to 61695-Continued.

61668. No. 420. Mochudi, Bechuanaland, June 15, 1924. Similar to 421 [S. P. I. No. 61669], but known as *Sefoke*.

61669. No. 421. Known as Noanyaantlhana, a good late variety.

61670. No. 422. Typical Mabele, known as Sekamfokane.

61671. No. 423. One of the best types, known as Segaolane.

61672. No. 424.

61673. No. 460. June, 1924. A sample of the Kafir corn.

61674. HOLCUS SORGHUM VERTICILLIFLO-RUS (Steud.) Hitchc. Poaceæ. Tabucki grass.

No. 306. May 8, 1924. Wild sorghum variety, very abundant on lowlands above southern end of Nyasaland, Domira Bay.

61675. HYPERICOPHYLLUM sp. Asteraceæ.

No. 262. Livingstonia. April 23, 1924. A beautiful composite with deep, rich-red flowers.

61676. MANISURIS Sp. Poaceæ. Grass.

No. 307. Domira Bay, May 8, 1924. A very tall rank grass abundant on the lowlands about Lake Nyasa, especially on the black cotton soils, where it grows from 6 to 8 feet high and produces a heavy crop of seed.

61677. ORYZA SATIVA L. POACER. Rice.

No. 201. Beira, Portuguese East Africa. April 20, 1924. A very low-growing, small-seeded variety. Grown at Beira on drier land. It has a peculiar odor and may be valuable.

61678. PANICUM MADAGASCARIENSE Spreng. Poaceæ. Grass.

No. 202. Beira, Portuguese East Africa. April 20, 1924. A small grass, very attractive and valuable as an ornamental.

61679. PANICUM sp. Poaceæ. Grass.

No. 388. Tjolotjo. June 11, 1924. One of the grasses which is most successful in the semiarid agriculture of the eastern Kalahari.

61680, POGONARTHRIA Sp. POaceæ. Grass.

No. 418. Tjolotjo, Southern Rhodesia. June 11, 1924. Mixed grass seed of the type which forms the grass cover on the eastern edge of the Kalahari Desert.

61681. SESAMUM ANGOLENSE Welw. Pedaliaceæ.

No. 386. Tjolotjo, Southern Rhodesia. June 11, 1924. This appears to be a smaller flowered type of wild sesame than is found in Central Africa.

61682. SOLANUM TUBEROSUM L. Solanaceæ. Potato.

No. 293. Livingstonia. April 30, 1924. Brought from Scotland some years ago and grown on the highlands above Nyasaland.

- 61683 and 61684. SORGHUM VERSICOLOR Anderss. Poaceæ. Black Sudan grass.
 - 61683. No. 239. April 23, 1924. A rather small plant about 3 to 6 feet high, abundant along the road south of Fort Johnston, Nyasaland.

61634 to 61695-Continued.

61684. No. 340. May 13, 1924. A dark-seeded plant resembling Sudan grass, abundant along roadways at the southern end of Lake Nyasa. The heads are dark, drooping gracefully, and the seeds shatter easily.

61685. SPOROBOLUS sp. Poaceæ. Grass.

No. 208. Beira, April 22, 1924. The golf course at Beira is made up of this grass. When closely clipped it makes a good turf. Most of the golf course is near tidewater level.

61686. STERCULIA sp. Sterculiaceæ.

No. 240. Fort Johnston. April 22, 1924. A large white-barked tree with very soft wood. The leaves are somewhat like those of the cotton plant. The pods are large, resembling those of Asclepias, but with stinging hairs around the aril, which is bright red. It is sometimes called the "fever" tree and is locally known as N'goza. The seeds are said to be picked to form a powder used as snuff.

61687. TERMINALIA SERICEA Burchell. Combretaceæ.

No. 407. Tjolotjo, Southern Rhodesia. June 11, 1924. A well-shaped ornamental tree, suitable for a semiarid country; the yellow wood is of excellent quality and the most valued of any in the region. Bark cloth of poor quality is made from the bark. The tree is known under the native names of Umangue, M'Susu, M'Tarataka, etc.

61688. THEMEDA Sp. Poaceæ. Grass.

No. 443. Ramanthlava, Bechuanaland. June 16, 1924. Mixed grass seed from the acacia-tall-grass belt, which is probably the most successful grazing region of Africa.

61689. TRADESCANTIA sp. Commelinaceæ.

No. 263. Livingstonia. April 27, 1924. Λ very delicate variety with showy flowers; it should be of value as an ornamental.

- 61690 to 61692. TRICHOLAENA ROSEA Nees. Poaceæ. Natal grass.
 - 61690. No. 295. April 30, 1924. Mixed grass seed from the hills above Livingstonia.
 - 61691. No. 305. Koto Koto, Nyasaland. May 7, 1924. A rather large type, abundant west of Lake Nyasa on the lowlands.

61692. No. 319. M'Khoma, Nyasaland. May 12, 1924. A grass grown in native sod.

61693. TRITICUM AESTIVUM L. (T. vulgare Vill.). Peaceca. Common wheat.

No. 294. Livingstonia. April 30, 1924. Wheat grown on the highlands above Nyasaland. It yields fairly well here. Much of the flour used here is produced on the highlands.

61694 and 61695. VIGNA SINENSIS (Torner) Savi. Fabaceæ. Cowpea,

Nos. 389 and 419-b. Tjolotjo, Southern Rhodesia. June 12, 1924. An important crop at the edge of the desert. There are many types grown in the same field. An effort was made to include all types in the sample.

61694. No. 389, 61695. No. 419-b.

61696 to 61725.

30

From Leningrad, Russia. Seeds presented by Prof. N. I. Vavilov, Director of the Bureau of Applied Botany and Plant Breeding. Received September 24, 1924. Notes by Professor Vavilov. 61696 to 61714. GOSSYPIUM spp. Malva-Cotton, ceæ. 61696. GOSSYPIUM SD. Kina. 61697. GOSSYPIUM Sp. 61698. Gossypium sp. No. 705. 61699. GOSSYPIUM Sp. Minus. 61700. Gossypium sp. No. 755. 61701. GOSSYPIUM Sp. Guzomochnii Bokhara. 61702. GOSSYPIUM SD. 69. No. Turkestan Selection Station. 61703. GOSSYPIUM Sp. No. 48. 61704. Gossypium sp. No. 182. 61705. GOSSYPIUM Sp. 182. Turkestan Selection Sta-No. tion. Clear rowed. 61706. GOSSYPIUM SD. Naviotzkii. 61707. GOSSYPIUM Sp. No. 48. 61708. GOSSYPIUM Sp. Fergan. 61709. Gossypium sp. No. 180. 61710. GOSSYPIUM Sp. No. 750. 61711. GOSSYPIUM Sp. No. T-509. 61712, GOSSYPIUM Sp. No. 455-A. 61713. GOSSYPIUM sp. No. 452-A. 61714. GOSSYPIUM sp. Weber. 61715 and 61716. HORDEUM VULGARE PAL-LIDUM Seringe. Poaceæ. Six-rowed barley. 61715. No 62. 61716. No. 63. 61717 to 61719. ORYZA SATIVA L. Poaceæ. Rice. 61717. No. 10. Bokhara. 61718. 16755-1922. Turkestan Republic. Shala. 61719. 170-F. Turkestan. Shala.

61696 to 61725-Continued.

- 61720. SECALE CEREALE L. Poaceæ. Rye. Abkhaz Republic.
- 61721. TRIFOLIUM PRATENSE L. Fabacea. Red clover. 360. 1174. No. 22.
 - 500. 1114. No. 22.
- 61722 to 61724. TRITICUM AESTIVUM L. (T. vulgare Vill.). Poaceæ. Common wheat. 61722. No. 50.
 - 61723. [No notes.]

61724. From Abkhaz.

- 61725. ZEA MAYS L. Poaceæ. Corn. From Abkhaz.
- 61726 to 61737. MEDICAGO SATIVA L. Fabaceæ. Alfalfa.
- From South America. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received July 14, 1924. Notes by Mr. Westover.
 - 61726. Near Lampa, Chile. May 13, 1924. Provence alfalfa, produced on the estate of Señor Marticorena, who is a very large producer of this seed. He procured the seed from France a few years ago and has made every effort to keep it pure. 61727 Santo La Content
 - 61727. Santa Ines, Chile. June 5, 1924. Seeds from an unusually vigorous plant found on the estate of Salvador Izquierdo.
 - 61728. June 1, 1924. From the Huasco Valley, about 12 miles from Alta del Carmen. Seed coming from this district, which is very warm, is regarded very highly.
 - 61729. April 7, 1924. Procured from Bridger Bros., Buenos Aires, and said to have been produced in the northern part of Argentina, where the climate is very mild.
 - 61730. March 31, 1924. Seeds collected from a plant near Lupan de Cuyo, Mendoza, Argentina.
 - **61731.** May 31, 1924. From near Mendoza. Argentina.
 - 61732. May, 1924. Puo F. C. Oeste, Pampa, Argentina.
 - 61733. March 26, 1924. Seeds produced on the estate of the Chapman brothers, near Enrique Lavalle, in the western part of the Province of Buenos Aires.
 - 61734. April 7, 1924. From Colonia Alvear, Mendoza, Argentina, a region comparatively free from frost.
 - 61735. June 7, 1924. Seeds obtained from Williamson & Co., Santiago, Chile. This seed is said to have been grown in the Huasco Valley, and many of the alfalfa growers in Chile use seed only from this source, as they claim that it produces more and better hay than seed from other parts of Chile.
 - 61736. June 20, 1924. Purchased from the seed store at Mollendo, Peru. This seed, which should be similar to our Smooth Peruvian, is said to have been produced at Candarava, about 30 leagues from Mollendo, at a high altitude.
 - 61737. Pisco, Peru. June 21, 1924. Purchased from the market. Probably grown near the coast and should be very similar to Hairy Peruvian.

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ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

March 28, 1927

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